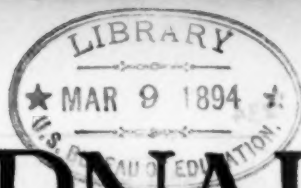


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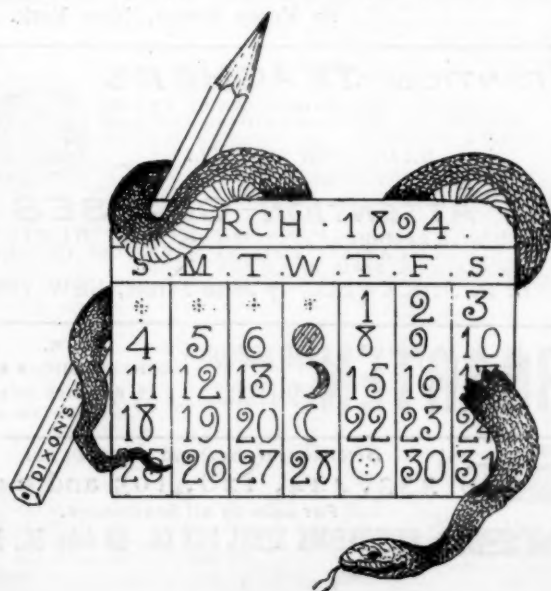
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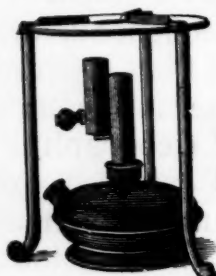
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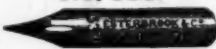
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A Weekly Journal of Education.

Vol. XLVIII.

For the Week Ending March 10

No. 10

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The business department of THE JOURNAL is on page 259.

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THE kindergarten was objected to because the child was said to lose time there in learning games, when he might be learning to read. The objectors, failed to realize that the cultivation of power must precede attainment. They also failed to see in the "games" anything but idle play. Instead of this the children were having their thought-field extended, their picture power cultivated, their responsiveness to desire and command and their kinship with all nature increased and trained. Their perceptive faculties were growing along with the poetic. They learned *method* in the only three things humanity has to do, observing, thinking, and expressing—and all in the most pleasurable, because interesting way. This wonderful education, which the casual observer failed to see in the kindergarten, afterward helped them to learn to read, write, and cipher. So it is with the new education school. The training it gives cultivates *power* while imparting information.

Teachers whose heart and soul are in their work should never join in protesting against any criticism directed against their indifferent colleagues. There are only two things to be done with teachers who are satisfied to go on in the old lesson-hearing ruts. One is to reach their consciences and awaken their professional intelligence to the fact that the school world is moving all the time. The other is to dismiss them from their positions. This latter alternative will in time fall to the part of awakened school boards. The former is in the hands of earnest neighbor-teachers. Don't let the teacher in the next room go to sleep if you can help it. You are informing yourself constantly as to better methods and higher ideals. Share your information with her until you get her interested. There is no grander missionary work.

Evidently, scientific education is a luxury in Chicago. The city and county finding themselves financially embarrassed, the first proposition was to suspend the Cook County normal school for a year. The animus of certain politicians is apparent in this suggestion, but it has a general bearing besides. Teaching is women's work, in the main; therefore teachers' salaries can be the most safely reduced in times of stress. Yet women very generally fail to see the necessity of acquiring full citizenship, as represented in the power to vote! The men who engage in teaching do so from a love of the work and a conviction of its importance. They are seldom politicians, except to the extent that is necessary to get

and maintain their positions. Such men can be more safely "ousted" than the perennial wire-pullers that occupy many lesser positions of public trust. All of us feel the perpetual menace to our schools that is inseparable from political control. Yet no united movement is proposed to take the schools out of politics!

The stay-at-home teacher is one of the principal sources of rust in school machinery. A more rapid, and in every way superior, way of accomplishing certain work is discovered and proved in a town a hundred miles away. The stay-at-home teacher smiles with wise incredulity when she hears it and goes on wasting the energies, spoiling the tempers, and robbing the youth of her pupils. Some power may arrive on the scene that forces the new method upon her. She resists faintly, then applies herself conscientiously (for these teachers don't *mean* to be wicked), finds the method successful, even boasts of the wonders it does, acknowledges that she has learned something, but smiles with the same wise incredulity as of old when you suggest that there may be something else to be learned, a hundred miles in some other direction.

A teacher tells us that she gave the lesson on "The Thimble," in THE JOURNAL of Nov. 11, with success in "waking up mind" and promoting habits of observation. One simple question was answered by a pupil thus: "I don't know. I never thought of noticing thimbles before. I didn't know there was so much to be said about them." The discovery that there was "so much to be said" about so simple an object was very interesting to the pupils, and set them to observing other simple objects more closely. This is the effect that observation lessons should have, and this is why courses of study require them. Teachers should study in advance the object upon which a lesson is to be given, to find out how much there is in it. Then question pupils in such a way as to lead them to see all this, and to tell of it in correct English.

We are often editorially severe upon teachers who do not move with the times. An occasional reader may sometimes recognize the "cap" as a good fit for himself, but, as a rule, the readers of THE JOURNAL are moving on. They would not read THE JOURNAL but for the desire to move on. It is not enough, however, to merely read THE JOURNAL. Listening to advice is one thing—following it is quite another. Teachers *must* inform themselves as to what other teachers, past and present, are doing. They *must* read educational classics. They *must* visit schools at a distance from their own. They *must* know what the summer schools are providing. They *must* study the question "How much can I enlarge my work under existing conditions?" They *must* do all these things before they can justly call themselves progressive teachers. And none but progressive teachers have any right in the ranks.

First Reading.

METHODS OF TEACHING IT, PAST AND PRESENT.

(Abstract of an address delivered before the Brooklyn Institute, by Edward G. Ward, associate superintendent of schools, Brooklyn, N. Y.)

Reading is thought-getting through word-getting. As a process, it consists of first, word-getting; second, thought-getting. Though thought-getting is the purpose of reading, word-getting must come first, in point of time. Word-getting is mechanical. Thought-getting is intellectual, but rests on the mechanical basis of word-getting.

A good method of teaching reading leads to rapidity in word-getting. The power to get words quickly is the first essential of thought-getting from the printed text. The primary school course, nearly everywhere, sends out children who have spent four years of labor in learning to read, yet are not ready or intelligent readers, because word-getting, by its slowness and uncertainty, remains an obstacle to thought-getting.

A good method of teaching reading not only imparts rapidity, but leads to *independence* in word-getting. This it does by furnishing a key to the construction of English words.

A good method *prevents interference of word-getting with thought-getting* by making its mechanical basis strong and sure. In most of the methods of word-getting the mechanical has obtruded itself in such a way that no good habits have been formed.

Three methods of teaching reading have been in vogue, each possessing a strength and a weakness peculiarly its own.

The first was the A-B-C, or the b-a, ba method, which, though few teachers realize it, was an imperfect phonetic method. It provided a key to English pronunciation, but so slowly and so indirectly that many pupils were unable to grasp and apply it, even after long courses in reading. It taught the sound of a letter over and through its name, which was often entirely different, as in the case of *h*. It made the pupil an independent reader in so far as he was able to acquire the imperfect key so clumsily provided, but was full of obstacles. The labor of spelling out words impeded thought-getting.

The Phonetic Method came next, but was never properly developed and so could not be applied to the best advantage of the learner. They tell me that great things have been done of late in Toronto in this line, but if they have a properly graded course in Phonetic Reading there, it is in advance of anything of the kind that has come to my notice elsewhere. The Phonetic Method provides a key and makes scholars independent if rationally applied. It requires drill and showing in the first place; but when the sounds and their signs are known, and the children have acquired the ability to blend them in words, the mechanical foundation of reading is secured.

The weakness of this method is in its present crudity and consequent liability to misapplication. It involves a careful grading. Prevailing adaptations of this method present the wrong sounds first and give too many in the first book. We are succeeding here in Brooklyn in giving not much more than half the alphabet of sounds during the first term. We thus, by very thorough teaching, give the children easy command of 2,000 words, all having meanings within the reach of their intelligence. We do this by taking the easier sounds first, teaching very carefully the art of blending them in words and presenting only words that are easy by reason of the few sounds they contain. The children can read readily anything within the limits set, and, though these 2,000 words are all short, a practical independence is gained, for it only requires more practice to get command of words of greater length.

Prevailing phonetic systems not only neglect the very necessary grading of the work, but fail to make due preparation for it. They introduce phonetic reading at the outset. The preparation that should be provided consists in the getting of the key.

The third method of teaching reading is the Word or

Sentence Method. Whichever we call it, the process is the same. This is the best method to begin with, because it offers no obstacle to thought-getting, provided the words are so well taught that there is no hesitancy in recognizing them. It is most important to form at the very outset and to maintain without break the habit of reading thoughtfully. The child should never be permitted to read one word at a time. He should be able, by scanning the sentence, to get the thought as a whole, and then, by oral reading, to give it as a whole. The Word Method presents its words as wholes, and there being no necessity for analysis of word structures, the eye meets with no impediment in running through the sentence, and the mind gets the thought freely.

The weakness of this method is that it provides no key and thus fails to make the pupil an independent reader, but keeps him a slave to instruction all his life. It has, for this reason, been well called "the Chinese method." When continued as the sole method of teaching reading, it ignores all the possibilities and necessities of growth. Luckily, that so-called "relic of barbarism," oral spelling, has survived to provide in some faint measure what the Word Method denies to the children. It gives a partial key. I do not believe that the inventor of the Word Method even meant it should be used alone in teaching reading.

The only Rational Method of teaching reading is a composite method, combining the strength of the Word Method with that of the Phonetic Method, the latter being logically developed and its scope greatly enlarged. We are using such a method here in Brooklyn with really brilliant success. I shall attempt to explain it, but must first define a few terms that we have found very useful in connection with this method. They are sight word, phonogram, simple phonogram, compound phonogram, word phonogram, and blend.

A sight word is any word taught as a whole and afterward recognized as a whole. These are taught by the word method. The initial stock contains some 60 or 70 words, more than 20 of which are afterward used as phonograms. A phonogram is anything that, in writing, represents a sound as *ā, ight, ing*. A simple phonogram is a character representing a simple sound, as *ā, m, t, or*, in other words, a single letter.

A compound phonogram is a combination of letters representing more than one sound pronounced together. Thus *ight*, and *ing*, are compound phonograms, the child considering each as a whole. Strictly speaking, *i* is a compound phonogram, but, as the child is never led to discover its diphthongal character, it is classed, for convenience, as a simple phonogram. A word-phonogram is any sight-word, used as a phonogram in some larger word. *Ail* is a word-phonogram in the words *fail, mail, sail*, etc. The blend is the union of sounds in a word. In order to secure it, the sounds most easily blended are taught first.

The method we are pursuing divides the work of learning to read into three stages, each of which involves three separate lines of daily work.

THE FIRST STAGE.

The first stage is preliminary to phonetic reading. The main work, occupying by far the greater part of the time, consists in teaching the initial stock of words, by the Word or Sentence Method, and establishing habits of conversational reading. These words are taught with their *s* and *ing* forms. After several words that take *s* are taught, as *dog, eat*, a lesson is given which teaches the adding of *s*, in *dogs, eats*, etc., and when a number of words that take *ing* (without dropping *e*) have been acquired, a single lesson suffices to teach *going, eating*, etc.

Sentences are kept very short in this stage of the work, being confined at first to two and three words. To make them as interesting as possible, the story element is introduced, several successive sentences referring to the same thing. Some find this difficult, but the more we can achieve continuity of sense in this way, the better we hold the interest of the children and the more success attends our work.

The second and third lines of daily work together make the preparation for phonetic reading. Neither consumes much time. The second consists in teaching an initial stock of phonograms, selected for the ease with which they blend. These are: *f, l, m, n, r, s, t, ā, ē, ō*, (all liquids, *i. e.*, sounds that can be prolonged) and the compound phonograms *ight*, and *ing*. The last two are added because they make a number of very usable words by prefixing a simple phonogram to each. Thus *right, sight, might, light, fight, night, sing, ring*, etc., are placed within immediate reach of the children as soon as the blend is taught. In order to do this work it is necessary that the teacher should herself know these sounds. It is no uncommon thing to find even bright teachers who give a prolonged *ā* as the sound of *r*. Their pupils make some very funny combinations.

The reason for giving an initial stock of phonograms should be stated. Students of psychology ask, "Why don't you give a word to begin with, and teach that it is made of separate sounds? This would be according to the law, 'Proceed from the whole to the parts.'" The trouble is that this method has cost a great deal of labor on the part of teachers with small proportionate gain to the pupils. The advantage of taking the work in the order I am describing is that the child very soon discovers that he has a power he did not suspect—the power of word-getting—and thereafter he is never tired of using it. He feels like a little bird that has just found out it has wings. It is a fact not to be brushed aside that, once the children have come into conscious possession of this power, the reading lessons cannot be made long enough to satisfy them except by encroaching upon the time that should be devoted to other subjects. Surely the child's pleasure in the exercise of his activities is a better psychological argument than any hard-and-fast rule. So we teach these initial phonograms without the child's knowing why. There is no difficulty about it, only they must be so thoroughly taught that they are recognized instantly. Without this instant recognition of phonograms, the blend, in its turn, becomes a difficult matter.

In the beginning, the teacher puts one of the phonograms on the blackboard, and, by means of some pleasant illustration (such as the hissing of a flock of geese for *f*), teaches its sound. Many times during the day, she turns to it suddenly and asks for the sound. This first phonogram taught is never forgotten. In the course of a week, by frequent attention for but a few moments at a time, three or four phonograms can be thus taught. After that, cards are used, the teacher showing a card bearing one of the phonograms taught requiring instant recognition, or, failing this, calling upon the class to tell. If this work is done briskly *all* the pupils will do *all* the work, because they will enjoy it. The teacher usually stands at a front corner of the room, where the entire class can see and calls upon the pupils in turn. No displeasure is manifested if a pupil misses. It should not take more than three minutes to go around a class of fifty pupils. It is frequently done in two minutes. These short, sharp exercises have yielded splendid results in rapid addition and other work of a similar nature.

The third line of daily work is the Ear Drill. The material for this is found in the first phonetic list of words. These words are composed of but two phonograms each. The child can no more carry a long series of sounds to make a word than he can carry many words to make a sentence. The teacher gives the sounds that make the word, as *r ight* or *s ō*, and the child gives the word, as *right, so*. Thus the blend is acquired. Sometimes single words alone are used and sometimes they are given in sentences, as "Johnny is a good little *m an*. He went to the store and bought his mother a pound of *m eat*." Five minutes a day is sufficient time to devote to this work.

SECOND STAGE.

This introduces phonetic reading, but still involves the three separate lines of work daily, the main line being the reading of sentences and the two auxiliary lines the drill upon phonograms (which is kept up

throughout the first year) and a drill upon the blend through the reading of single phonetic words. This exercise from this point taking the place of the ear drill is the first phonetic reading. The teacher writes *fat* on the blackboard. Covering *at* she asks what *f* is. Covering *f*, she asks what *at* is. Then she asks what word the two together make. The easiest words to begin with are those in which a simple phonogram is prefixed to a word phonogram.

In the effort of children to make out these words, lips will move and sounds will be whispered. If this is discouraged, the work is seriously impeded. The children should be allowed to do this needed experimenting. It is not disorder—it is work.

The new words acquired by the Word Method should include many that will work up nicely as phonograms (as *ice*, which makes *nice, rice, mice*, etc.) and words that cannot soon be taught phonetically, as *said, bird*, etc. The sentences should still be very short.

THIRD STAGE.

Here we have the full combined method. The three separate lines of daily work are still pursued, however. The regular reading lessons now include one phonetic word in each sentence, with much review of sight words. By this time, the children have formed the habit of reading thoughtfully but are still slow in phonetics. New sight words are taught, their selection following the same principles as in the previous stage. As the children grow accustomed to finding the marked words in the sentences and the phonetic reading becomes easier by reason of familiarity, more than one word to a sentence may be introduced. The use of single phonetic words, apart from the sentence reading, to practice the blend is continued. Success depends upon the number of words thus used. Practice makes perfect.

When columns of these words are used, every third or fourth word should be a very easy one, to encourage the weak pupils. A discouraged child contains more power of what may be called passive resistance than a team of mules. A little child who thinks he can't do a thing *can't try to do it*, but a little encouragement goes a long way. The drill on phonograms is still kept up, and new phonograms are taught from time to time. The words for the daily drill on the blend are taken in part from the phonetic list in use and in part from previously used lists.

The two auxiliary lines of work are continued during the entire year, to cultivate expertness, and to bring up children who may have lost time through absence, or who come from schools where the preliminary work has not been done.

That is a pregnant saying of Goethe's about Nature: "She rejoices in illusion. If a man destroys this in himself and others, she punishes him like the hardest tyrant. If he follows her in confidence, she presses him to her heart as it were her child." It is indeed the part of the highest wisdom to receive Nature in her surface aspects of grace and witchery, to let her play off upon the receptive soul her illusions, which cheer, elevate, and inspire.

Every thoughtful, educated man to-day is aware that, viewed with the analytic eye of science, it is a stern law underlying natural phenomena: Nature "red in tooth and clay" is nearer the fact than Nature clothed with shifting garments of loveliness. Yet it is not shallow nor is it wrong to fasten on the latter rather than on the former phases.—*Ex.*

In many cases all that we can do, or should aim to do, is to make the best of what Nature has given. Every one's natural genius should be carried as far as it can be; to attempt the putting another upon him will be but labor in vain.—*Locke.*

Hast thou ever meditated on that word tradition: how we inherit not life only, but all the garniture and form of life; and work, and speak, and even think, and feel as our fathers and primeval grandfathers, from the beginning have given it us.
—*Carlyle.*

PRIMARY METHODS

Combined Method of Teaching Reading. VII.

By ELLEN E. KENYON.

THE LIBERAL SIDE.—HOW TO USE A SCIENCE PRIMER.

Our children are not yet perfectly independent readers. How many white-haired scholars are? The full meaning of all text depends upon the reader's previous knowledge of the subject. First-year children, even though scientifically taught, have no profound or well organized knowledge of any subject. Many words in the simplest (good) reading matter are still without their vocabulary.

Words familiar in speech, though not yet encountered in print, will pronounce themselves in the child's mind (at the stage of progress taken up in this number) partly through the phonetic sense and partly by aid of context. Words not yet encountered, either in speech or in reading, must be taken out of the lesson and phonetically marked upon the blackboard, and their meanings taught by context (*i. e.*, in sentences).

It is time now that the children should take up a science primer. I will use "Seaside and Wayside No. 1" in brief illustration of the method.

A teacher recently confided to me that she had to use this book and the children did not like it. "What! I exclaimed," "They did not enjoy their examination of the crab, the wasp, the bee, the spider, and the conch?"

With a bewildered look, the young lady explained that the children had had none of these—only the pictures and the text. Not even one crab had been brought into the class-room and passed around. Not even a conversation upon the spider as casually observed by the children in garrets and cellars had been conducted.

Dear teachers, this is very inefficient primary work. Every one of you that does such work should be engaged in a college or in some higher school where pupils with ready-developed minds are studying. You have not mastered the first principle of primary teaching. You nod a smiling assent when some one tells you that "the child lives in a world of sense" and yet you require him to live in a world of abstractions.

What do you expect to do for the development of a fish out of water? If you take the child out of his natural element, *you will fail* to teach him. Of course that charming little book proves dry under such a method! Those crabs in the book are almost pure abstractions, even to children who have seen crabs. *One live crab* would have saved you and your children many hours of dreariness. Even a dead crab would have been worth something to you. I am afraid you don't look over to-morrow's work in advance, and apply your knowledge of psychology in preparing it.

But I forget! I am addressing readers of the PRIMARY SCHOOL JOURNAL. It was *not* a reader of this paper who made the above distressing admissions.

To take up a science primer in this course means simply to choose for observation lessons the subjects found between two covers instead of applying always the principle of timeliness. The work thus becomes more restricted for the sake of suitable print reading, which is scarce.

To the teacher who has followed this course so far, it is scarcely necessary to indicate the method. Of course the little reader's pathway must be cleared of obstacles as much as possible by the previous development (as to pronunciation and meaning) of the strange words—of which there cannot be many in this first lesson on the crab. And of course the child's interest must be roused in the subject of the lesson before the print is given him to read. A live crab and a boiled crab are therefore procured, if not enough to go round the class, and such features as the children are capable of observing are noted and described. These points are arranged in some sort of order on the blackboard, in the children's own (corrected and sometimes remodeled) sentences, for a script reading lesson. Then the children are prepared to be interested in the pictured crabs and in what the book has to say about Mr. and Mrs. C.

Script reading should thus be made tributary to print reading,

but should also deal with the passing-interests of the day; and March is full of them. The passing away of winter is one of the most interesting subjects of the year. The prophecy of foliage and birds and nesting time, and blossoms and house-cleaning and open windows admitting balmy airs—all this is full of stir and hope. The question "Does all this come to all little boys and girls at once?" is a mind-enlarging question, leading into geography and sociology. A picture of skating is still a representation of daily life to some of THE JOURNAL's little ones, while to others it already suggests a mere memory.

THE MECHANICS.

Word study continues.

A good study for the month will be the modification in stem words as they take suffixes. Accident or design may suggest this study.

A suggestive accident would be the division of the word *given* at the end of a line. The pupil, who has been accustomed to spelling (*i. e.*, writing or spelling orally) *give* with an *e*, is not quite satisfied with the *giv* that must precede the hyphen. The teacher may ask, "How would it be if the word were *giving*?" and the class will admit that *then* there would be no *e*.

Other words in which *e* is dropped before *ing* are cited and written in columns and it is decided that in the same words the *e* is dropped before *en* and *er*. Groups of such words as *giver*, etc., are written with a slight separation between the syllables and copied by the children.

Occasionally, a word retains its final *e* to preserve the sound of the preceding consonant, or to distinguish it from another word. Exceptions, such as *singeing*, should be cited to prevent the pupils' too great reliance upon the rule.

Words that have no "silent *e*" at the end, have none to drop. This introduces a class of words that do not change with the addition of a suffix as *miller*, *drinking*.

But other words are encountered that will not take these suffixes without interposing a repetition of their final letters. These final letters that must be doubled are all consonants. The children will run across such examples as *digging*, *hopping*, *spinning*.

An old-fashioned speller will furnish other hints for the study of English orthographic classification and the rules of spelling. Don't be afraid or ashamed to appeal to the toilers of the past for the nuggets they have mined for you. They concerned themselves more closely with the *material* of teaching. We, who have their hard-earned material at hand, may concern ourselves all the more freely with *method*.

NOTE.—Since I last addressed the readers of THE JOURNAL on this subject two interesting facts have come to my attention. One is that a system very like the one here given is achieving a famous success in Pittsburgh, proving anew that the Mechanics of Reading can be taught rapidly and well without slighting the Liberal Reading. The other is that certain practitioners of one of the leading Phonetic Systems in use have warned its author that these articles are "making liberal use of her method." These teachers should inform themselves regarding the history of the Phonetic Method of teaching reading. From the sixteenth century it has received the attention of earnest minds. Several recent adaptations of the method are achieving brilliant success in different parts of this country and Canada. The material of which these systems are all made is old and has been public property for many years. In the use of this material, they all resemble one another. In the order of its use they differ, as also in some of the devices employed. The system here given was developed in the author's own class-room during the years 1886-87. If the new-fledged teachers who know of but one phonetic system will look at the date of the copyright they think infringed, they will see that it suffers under that disadvantage which so afflicted David Copperfield—it is "very young." Almost every feature of this plan was published by the present writer in advance of the appearance of the Manual in question. Some of these features are not original nor have they been claimed as original. A method of teaching reading that should be wholly original in these days would be erratic indeed. The progression of steps in phonetics, the generic scope and attribute of timeliness that distinguish the Liberal Reading and the relation of Mechanical exercises to Liberal Reading are the leading original features, and the author has not protected even these by copyright. If they are worth anything all are welcome to them. Let it be emphatically stated, however, that every detail of this work, whether original with the present writer or not, is older than the Manual from which unstudious teachers have thought it borrowed.

The future of phonetics, as a method for general use, apart from Liberal Reading, is in its grading. The best graded and least encumbered system of phonetic teaching with which I am at present acquainted is that which is achieving such a remarkable success in Brooklyn.

Devices for Teaching Reading.

By a NORMAL STUDENT at Training School, Pittsfield, Mass.

Such devices as the following for teaching reading may often be profitably used in second year work. Suppose the children have not previously studied the lesson, and that the story is illustrated by a pretty picture. The following lesson has been taken from the "Children's Primer," by Miss Ellen M. Cyr:

I have found a very pretty picture in my book, children. It is on page 31. See if you can all find the picture. Mary has it, also John. Yes, all have found it now. Isn't this a pretty picture! You may all look at it very closely for a minute. Who would like to tell me the first story? John, you may.

"I see two boys going to the pasture for the cows."

You said the cows were in the pasture. Why do you think they are in the pasture rather than in the road? "Because I do not see any road; all I see is a large field where there are trees, flowers, and grass growing."

What are the boys doing? "One boy is gathering daisies and the other looks as if he were calling the cows."

How many of you have ever seen boys driving home the cows? (The children who have, raise their hands.)

If the cows are far from the bars what do the boys generally do? "The boys call them."

Did you ever hear a boy call the cows? "Yes."

Who can call as he did? You may try, James. "Co' boss, co' boss, co' boss!"

When are cows usually brought home from pasture? "In the evening."

You may now read the lesson over silently, children, and see if you can find any new words. All the words with which the children are not familiar are then written on the board, and after each child has silently looked the lesson over the books are closed and the lesson is continued from the board.

Mary, you may pronounce as I point. (The teacher points promiscuously to the words. Have each word pronounced in this manner a few times.)

Who will pronounce the word I point to, and make a story using the word? John, you may. "Pretty. My papa has a pretty picture."

(Write stories for all the words and let the children read them, to acquire cultured expression in reading and talking. If the children fail to read with proper expression try to secure it by asking such questions as will cause them to express themselves as they naturally would in talking.)

The children should now know all the words in the lesson, and after reading it over silently a few times, before the next recitation they should be able to read it fluently and with natural inflections of the voice.)

Think of any story in the lesson, for instance, "See all the pretty flowers."

I am thinking of a story beginning with S-ee (giving the sound) who will read the story? I am thinking of a story beginning with F-ive. (Five cows are eating.) Who can guess this story? I am thinking of a story beginning with B-ess. (Bess is the name of papa's red cow.) Who can guess this story?

Sometimes let the children take turns in playing teacher. Whoever is to be teacher stands before the class and points to whatever words he chooses, calling on different children to recite. Care should be taken that all the children may be allowed to recite, not merely the bright pupils.

Often when the interest in a lesson begins to flag the children's curiosity may be aroused by asking who can read as fast as I can write? The teacher then writes some simple stories as fast as possible, using only words with which the children are familiar.

When words are to be taught which do not make a story, or give the children any material for definite thought, such as here, there, this, that, these, those, etc., the following plan has been adopted. Give the child a book, pencil, or any convenient object and ask him, where is the book? "Here is the book."

The teacher then writes the story on the board and asks the child to read it. She then places the book on the table and asks, Where is the book? Have the child point to the book and say, "There is the book."

Whose book is this? "This book is mine."

Do not use many new words during a recitation as new words are confusing to the children's minds, and may partly undo the previous work.

Another device is to arrange the words in a column at one side of the blackboard and opposite them write the stories. Drill the children in the use of the words by pointing promiscuously to the words in the column, and then in the sentences where they occur; also let the children make stories illustrating the words to be learned. When there are a number of stories written on the board erase one new word at a time, and ask, who can tell what word I have erased.

Sometimes the singular number of a noun may be changed to the plural, and vice versa. The boy's hat is in the hall. The boys' hats are in the hall.

Sight reading lessons should be given every day. Frequent re-

views are beneficial to the children. In giving a review lesson in reading all the words can be written in columns on the board. The teacher points, and asks the children to pronounce them or appoints some child to be teacher and lets her point. After the words seem familiar, stories may be made and written which should also be read.

Another interesting exercise for the children is to give them some familiar word upon which to build new ones by prefixing a new letter. Take the word "old;" change into cold, hold, told, sold, fold, gold, bold, or by changing the first letter as fame, same, tame, game, lame, came, dame, name.

Teaching Composition. II.

By an EX-TEACHER.

Letters written during the first year have contained but a single paragraph of subject matter. Paragraphing, therefore, remains to be learned and the proper way of heading a story or a description.

Pupils should rule their own marginal lines during the beginning of the second year's work, and learn to dispense with them before the year is out. Ordinary or double-ruled writing paper may be distributed with rules and the following directions given:

Measure one inch from the left edge of your paper at top and bottom and place very light dots to show the distance.

Lay your rule between the dots and the edge. Hold it so that you can just see the dots. Hold it firmly in place with the fingers of your left hand. Place pencil point at top of paper, touching ruler, and draw through both dots to the bottom.

Measure half an inch to the right of the line just drawn, near the top of your paper. See if this is just an inch and a half from the left edge. Place a dot. Find the same distance at bottom. Place a dot. Lay ruler to left of these dots, so that the dots are just seen, and hold it firmly. Draw through dots from top to bottom.

Once in a while, if a "show" composition is needed or you wish the children to see a slightly prettier page than their pencil-rulings, however well executed, can produce, ready margined paper may be used. The children, however, should rule the *first* marginal lines because, if these are of their own making, they will see them better and more readily learn their application.

The first exercise should be one in copying. A composition on *The Lion*, made by the class, but written by the teacher upon the blackboard with marginal lines to correspond with papers and penmanship as perfect as possible, is first discussed.

Where is the subject to be written? Pupils place a tiny cross where they think they should begin it. Teacher accepts these positions or corrects by placing another cross. The subject is written.

Where should the first paragraph begin? If the first letter (we will say the word is *The*) is to touch the second marginal line, where is it to begin? Pupils place a tiny dot to show. Teacher criticises as before.

The first line is filled. Where shall the first word upon the second line be written? etc., etc., etc.

The first paragraph is completed. Where shall the second begin? What precautions are necessary? The second line, etc.?

The signature may be placed as in a letter.

The next day this same composition should be dictated. During the dictation the points taught in copying should be reviewed by questions.

A second dictation, without suggestion, should complete the preparation for independent placing of matter in a composition of a similar form. Progress, however, should be very gentle, and the following additional help may be needed:

A new observation or other lesson, yielding a new composition has been given; as the pupils composed, the teacher, criticised, assisted in recomposition, and wrote. The composition is read by pupils. They are told to take a last look at it and it is hidden from their view. They are then directed to write a composition on that subject, which may be that composition or another, but must be *arranged* as that is. The result is criticised for arrangement only, the model being again exposed to view for comparison.

The elements of composition are now taught. The rest is but to add age, class, and date to name, or to put these items somewhere else on the paper, and to watch over the spelling, capitalization, and punctuation.

Throughout this work the misspelled word should be avoided by every precaution. If pupils need to use a word whose orthography they have not learned let them ask how to spell it. In most cases the best answer is to write it on the board.

"The things to be chiefly sought in composition writing are freshness, originality, and boldness, far rather than finish, as should also be the rule in drawing."

First Steps in Literature.

BY GEORGIA A. HODSKINS.
JOHN BURROUGHS.

March has come at last! What a windy, noisy month it is! Are you glad to have it here again! Why?

Have you seen any signs of spring yet? I saw the pussy willows and the alder tassels the other day and yesterday I heard the song sparrows and the bluebirds. They are back from their Southern trip. Are you as glad to see them back as I am?

What has all this to do with our story? Everything. I am going to tell you to-day something written by a new author. His name is John Burroughs. If you love the woods and fields, the flowers and birds, I am sure that you will love to read and hear what this man has written, for he loves them so much himself that he has written very charmingly about them.

His home now is a beautiful farm on the banks of the Hudson river. Here he spends most of the year, working among his fruit trees or in his garden, watching and tending his bees, taking long walks in the lovely woods about his home, or sitting in his study writing the delightful articles that we so much enjoy.

Many of these articles were first printed in some magazine or paper and have since been collected and put in book form. I hope you will read many of them for yourselves. I am sure you would enjoy "Sharp Eyes" and "Bird Nesting" now. You will find those in his book called "Locusts and Wild Honey."

Did you ever think what a hard time the little birds have? You have thought it would be very pleasant to have wings and fly about in the clear air; but I am almost sure you have never thought of the many trials and troubles of our little songsters. So to-day I am going to tell you something of what Mr. Burroughs has written about some of their troubles in an article called

"*Bird Enemies*."—How surely the birds know their enemies! See how the wrens and robins and bluebirds pursue and scold the cat while they take little or no notice of the dog! I want you to watch next time Rover goes to sleep out on the step or pussy takes a nap under the tree in your yard, and see if you can notice any difference in the birds' behavior.

Have you ever seen the blue jay? He is a handsome bird, but his voice is far from pleasant. I am afraid the smaller birds do not think him very handsome, for "handsome is that handsome does" with birds as well as folks, and the jay is a great thief. He finds the nests of other birds and then steals their eggs.

"But the birds have nearly all found out the trick of the jay, and when he comes sneaking through the trees in May and June in quest of eggs, he is quickly exposed and roundly abused. It is amusing to see the robins hustle him out of the tree which holds their nest. They cry 'Thief, thief!' to the top of their voices as they charge upon him."

The owl is another enemy of the little birds. He flies up very quietly at night when the birds are asleep, snatches them off their nests or drives them away and then "gobbles up their eggs" and young ones.

MR. BURROUGHS' CHERRIES.

I told you that Mr. Burroughs had many fine fruit trees on his farm. Among them were some very early cherries and of course all the birds found it out. Knowing that the small birds were all afraid of an owl he put a stuffed one in the tree and thought his cherries would be safe that year. As soon as the birds spied the owl they commenced flying about, screaming and fussing till at last, as he says, almost "every bird in the town came to see that owl in the cherry tree, and every bird took a cherry, so that I lost more fruit than if I had left the owl indoors."

Other Enemies.—The little red squirrel likes a meal of fresh eggs now and then, and it is very easy for so lively a fellow as he to climb up and rob any nest. The nests, too, are often robbed by snakes and of these enemies the birds seem to feel more fear than of all the others.

Habits of the Young Birds.—Mr. Burroughs tells us that the young woodpeckers, orioles, and chimney swallows, that live in safe hidden nests or in deep cradles that are not easily broken into, make a great noise and fuss when they are frightened. "The young of the sparrows—warblers, fly-catchers, thrushes, etc., never allow a sound to escape them; and on the alarm of their parents being heard sit especially close and motionless while the young of the chimney swallows, woodpeckers, and orioles are very noisy."

"Among the worst enemies of our birds are the so called 'collectors.' . . . One collector tells with gusto how he worked his way through an orchard leaving, as he believed, not one nest behind him. He had better not be caught working his way through my orchard."

But we must not put all the blame for our song birds growing more and more rare each year upon the collector. Hundreds and thousands of the handsomest are killed every year to be used by the milliners.

"I am told of one man who collected from the shooters in one district, in four months, seventy thousand bird skins." Think of wearing in your hat or bonnet "the scalps of our songsters!"

Reproduction Stories.

Amy's big brother asked her what thunder was. She said, "It's God rolling barrels about in heaven."

Curly runs to meet his little master when he thinks it is time for school to be over. They always come home together.

Robert and his brother are visiting their country cousins. They have rides on top of the loads of hay, and a great deal more fun.

Bang! went the doll's head on the floor, and it split in two. Amy had dropped it. But she didn't cry. She said: "I am glad it wasn't my head."

Lucy thinks a baby is a great deal nicer than a doll to play with, because baby can move her hands and feet, and can cry or laugh, and a doll cannot.

Mama was sick with a headache. So Louise and Dick whispered softly, and took care not to make a noise. After a while mama's head felt better.

Frisk often minds the baby when she is asleep. Mama just tells him to watch baby, and he jumps upon a chair beside the cradle. He would defend that baby with his life.

Three young turtle-doves
Never quarreled in their nest,
For they dearly loved each other,
Though they loved their mother best.

A couple of robins had built their nest in a tree that touched our window. A month later four little yellow beaks stuck out of the nest. The young birds are growing up fast and take lessons in flying every day.

Little Carrie was watching the sun set for the first time, at the seashore. As she saw it sink down into the water, she said: "Now I know where the sun goes when it leaves us. It goes to take a bath after the heat of the day."

Mama asked Frank one night to go and get her work-basket from upstairs. But Frank said he was afraid of the dark. So mama explained to him that the dark was only caused by something coming between the sun and us. Then Frank was no longer afraid.

A little girl hung up her stocking for a whole week. She thought that Santa Claus would fill it, even though it wasn't Christmas. When she put her hand in to see what it was, something bit her, and in another moment three little baby rats rushed out through a hole in the stocking.

Oscar had a little terrier for a pet. The bright eyes of the dog were half hidden by a fringe of hair. Oscar cut the fringe away so that Frisk could see better. But Frisk's eyes were not meant for the glare of light that this let in upon them. They grew weak, and at last poor Frisk became blind.

James and John accidentally broke a window with their ball. James said, "Let's run away." John said, "I would not do such a mean thing. I broke the window, and I am going to tell the owner, and pay for it." Then James felt ashamed and said, "I didn't think how mean it would be to run away. I will pay half, for if I had caught the ball, it would not have broken the window."

A dog had a large piece of meat in his mouth. On his way home with it he had to cross a bridge over a stream. As he was crossing he saw his shadow in the water. He thought it was another dog with a piece of meat, and made up his mind to get that piece of meat also. He snapped at the shadow, and in doing so dropped his own piece of meat, and so had none left.

Amy's monkey is very apt to get into mischief if left to himself. One day after Amy had put chestnuts on the fire to roast, the monkey thought he would like them, but he was afraid of burning himself. So he took pussy and used her paw to get out the nuts. Amy rushed in when she smelled something burning, and just released the cat in time to save her from being badly burned.

On an ocean steamer a monkey was found, who was a great pet of the sailors. The sailors were very kind to him, and fed him. In return for their kindness, Ned—that was the monkey's name—would hide their hats, and jump upon them unawares, so as to frighten them. The sailors took all these pranks very good-naturedly, and were very sorry when the vessel reached shore, and the monkey left the vessel with his owner.

Lessons in Vocal Culture.

By JENNIE SKINNER BALDWIN.

When children enter the primary school, they are not usually the slaves of bad respiratory habits, so do not need much individual treatment. The teacher can establish harmonious action of all the muscular forces that take part in the act of respiration, in the children, by means of class work.

After this harmonious activity has been established, care should be exercised that it is not destroyed while tone is produced. The teacher must use means to prevent the improper contraction of the pharynx, larynx, and tongue. Another important aim in voice training is to produce the elements of speech without disturbing the conditions for good tone.

If you can keep the children from being self-conscious, there will be less constraint on their part; hence their tones will be better. When giving lessons in breathing, we should *avoid telling pupils how*, but surround them with the right conditions, and let them breathe. Try to direct their attention to what they do when breathing, especially to sensations.

LESSON.

Children, would you like to go out into the fields with me the first spring day? When we go, there may be a cow in Mr. Smith's meadow, near which we will pass. Let us all close our lips, and imitate her cry. "*Moo, moo, moo.*"

(Notice carefully to see that the diaphragm moves *down* and *out* in inspiration, and *in* and *up* in making the sound. If there is no constraint in the throat, under chin, tongue, and lips, there should be round, full tones,—not sharp, high, flat ones.)

You may tell me where you want the cow to have her dinner. Take a good long breath after you recite each line to me.

"Where the purple violet grows,
Where the bubbling water flows,
Where the grass is fresh and fine,
Pretty cow, go there and dine.
Moo, moo, moo."

Perhaps we may see Mr. Smith's sheep, too. What will they say to us? "*Baa, baa.*"

Let us keep our mouths wide open, as much of the time as we can, while we repeat the rhyme about the black sheep. You can take a long breath at the end of each line.

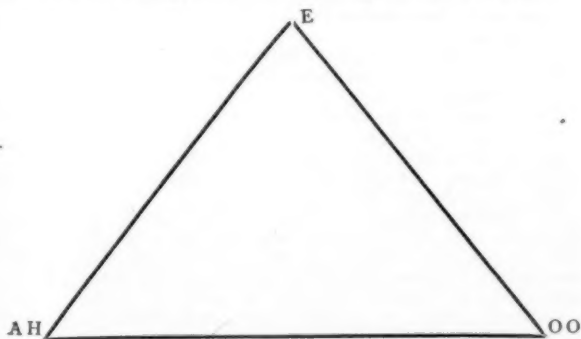
(Try and have the children breathe at the base of their lungs, but avoid a feeling of self-consciousness.)

"Baa, baa, black sheep,
Have you any wool?
Yes, yes, Massa,
Three bags full."

PRONOUNCING VOWELS.

What do we sing in our music lesson that sounds very much like the sheep's call? Let us sing "*ah*" in a full, clear voice. Now you may sing each tone of the scale with "*ah*;" every tongue lying flat, with its point against the lower teeth.

(Use a scale that is easy for all.) If you watch me carefully, you will see that I can sing a long time without taking a new breath, and yet I pause a little between each vowel. Breathe from the base of the lungs, and in one breath give "*ah*," *ä*, *ë*, *ö*, *öö*.



This exercise can be repeated on each note of the scale, closing always with the first "*doh*." If a pause is made after each vowel, they will not be run into one another, and each vowel quality will be brought out distinctly. The child can train his tongue to hold one position, and his ear to recognize the subtle glide in speech,—as in *a* the initial sound of *ä* glides into *ë*. In this way they can be made to see that the proper pronunciation of speech constitutes so much of the beauty of language.

An exercise for the lips and jaws.

Pronounce the vowel *ë*, extending the lips as much as possible sidewise, and showing the tips of the teeth.

Pronounce *ah*, dropping the jaw and opening the mouth to its widest extent.

Pronounce *oo* (as in cool) contracting the lips.

Pass the pointer around in a circle, touching at the angles, and have the pupils utter the vowels as you indicate them. After going round both ways, from *e*, as a starting-point, have other repetitions of the following:—*e-ah-oo*; *e-oo-ah*; *ah-e-oo*; *ah-oo-e*; *oo-ah-e*; *oo-e-ah*.

PRONOUNCING CONSONANTS.

Consonants should be practiced for gymnastics of the organs of speech in combination with the vowels. Starting with an open position of the organs, the vowel "*ah*," sing the scale to 5 and return, by putting the obstructive consonant *p* with each alternate vowel; as:—*a-pah, a-pah, etc.* Ditto with *a-ba*; *a-ma*; *a-ta*; *a-da*; *a-na*; *a-ka*; *a-ga*; *a-wga*; *a-fa*; *a-va*; *a-ra*; *a-la*; *a-sa*; *a-za*; *a-tha*; *a-ya*; *a-sha*; *a-zha*; *a-wa*; *a-wha*.

Care should be taken that the children do not waste their breath on the first vowel, but keep the passage open, and control the breath at the diaphragm.

COMBINING VOWELS AND CONSONANTS IN WORDS.

Have the children breathe deeply several times. Then while keeping their mouths wide open, they should inhale through the nostrils several times.

From the position of open-mouth, they may articulate these syllables, taking breath between each:—*pah, breathe; fah, breathe; kah, breathe; lah.* These syllables can be sung on one note of the scale at a time, as far as five and return. Children should not forget to breathe before each note, and to utter the words rapidly. The syllables may be varied and sung in this order: *pah, fah, lah, kah. Pah, kah, fah, lah.*

The mouth should always be opened wide after each word, and the chin dropped easily. Be sure that the children breathe through their nostrils with their *mouths open*.

Words may be substituted in place of the syllables; as:—*all, ball, fall, call*; *alarm, disarm, depart, discharge.* These words may be followed by other words. These exercises are intended as gymnastics for healthy children, but if defective consonants are found, individual attention must be given to the pupils. The action of the jaw should never appear strained, but should be natural and rhythmical.

Let us hope that voice culture will not be at the rear of educational progress in the future. Those who have given much time and thought to the subject, have not guarded their knowledge gained, as a patent right, as was formerly the case, that they alone might reap the rewards of their knowledge. Of such, Mark Antony could not say that "the good men do is generally interred with their bones."

With this knowledge at our command, it is our place to strive to develop the best tones in our pupils, and produce such excellence in voice culture as lies in our power.

Outline Lesson Plans from a Teacher's Day Book.

By a PRIMARY TEACHER.

OBSERVATION AND LANGUAGE.

I.

Object:—To have children describe a ruler.

a.—Hold the ruler before the class a moment without in any way directing attention to its parts or characteristics; move hand along its sides and stretch hands apart to indicate that the length is to be noticed; silently call attention to its narrowness and the flatness of its sides.

b.—Ask what the rule is made of and what we use it for. Represent the statement regarding its material on the B.B., by 1 and that regarding its use by 2. Call for repetition of these two statements. Indicate its length with the hand and elicit statement. Indicate narrowness and flatness and elicit statements. Have these three statements combined and represent the sentence by 3.

c.—Practice pupils in giving complete description, with only the figures to suggest its parts:

1. The rule is made of wood.
2. We use it to rule lines and to measure with.
3. It is long, narrow, and flat.

II.

Object:—To have children reproduce a story told by the teacher.

a and *b.*—Tell the following story: One evening Willie and his mama took a walk in the garden. They saw a toad in the path. Willie wanted to throw a stone at it, but his mama said: "No, Willie, don't hurt the little toad. It eats the bugs from the plants."

Ask: Who took a walk? Where did they walk? When did they walk there? What did they see? Where was the toad? What did Willie want to do? What did his mother say?

c.—Tell and re-tell the story.

III.

Object.—To have children describe a mug.
a.—The mug is placed before the class and a minute allowed for inspection.

b.—What is the mug made of? (Complete sentence.) Present bottom of mug, running finger suggestively around it, eliciting "The bottom is a circle." Write the figures 1 and 2 on B.B., and review the two points. Move hand round and round the mug till some one says, "It is a cylinder." Put hand inside to elicit "It is a hollow cylinder," and get the amendment "closed at one end by trying to thrust the hand through it. Add figure 3 and review the three statements. Move finger over the handle and describe with finger same shape on B.B., to get, "The handle is like a question mark." Pretend to drink out of it for "We use the mug to drink from." Add 4 and 5 and review.

c.—Practice dull pupils in repeating the entire description, following the numbers. Erase the numbers and have a few pupils describe without them.

IV.

Object :—To develop a story from a picture.

Story :—Little Fred took a knife after his mother told him not to. He cut his finger and cried. His sister Alice said, "Don't cry. I'll put a piece of court plaster on it and then you must not touch any more knives."

a.—Expose picture and allow a minute for examination.

b.—Who is this little boy? What is he doing? Why is he crying? How did he cut his finger? Who is with him? What is his sister Alice saying?

c.—Tell the whole story.

V.

Object.—To study and describe a pin.

a.—Tell me all the different kinds of pins you know about.

b.—Here is a whole row of pins. We will talk about this one. What shape is the most of it? Is it a short, thick cylinder, like a spool? What then? Tell about both ends. What is the point for? The head? What is the pin for? What is it made of?

c.—Repeat description.

1. The pin a long, thin cylinder, with a point at one end and a head at the other.

2. The point is so that the pin will go into the cloth easily, without tearing it, and the head is to keep it from going all the way through.

3. It is made of brass.

4. We use it to fasten cloth together when we don't want to sew it.

VI.

Object :—To have children develop a story from the picture, "That's my papa," (Babbitt's list) in which a little girl stands on a chair, listening to some one talking through the telephone.

a.—Children look at the picture a moment or two, and make up their minds what to tell about it. Allow a few of the backward children to express themselves.

b.—Ask : Where is the little girl? What is she doing? Who is talking to her? (Give name of picture to decide this question.) What is he saying? Tell the story.

This little girl is standing on a chair to listen to her papa. He is talking to her through the telephone. He is saying : Tell mama to have a good dinner, for Uncle Charley and Cousin Joe are coming home with me to-day. "The little girl is glad because she loves her Uncle Charley and Cousin Joe. She likes to hear her papa talk through the telephone. When he has finished she will hang up the ear-piece and put her mouth to the mouth-piece. She will say : "All right, papa! Good-by."

c.—Practice in telling the story.

VII.

Object :—Practice in much used modes and tenses of *take*.

Preparation :—Class have pencils in racks and slates on desks, ready for a writing lesson.

a and *b.*—Before we can write, what must we do? (We must *take* our pencils.) And I will do what? (You will *take* the chalk.) Let us do it. What did you do, John? (I *took* my pencil.) What did John do, Tom? (He *took* his pencil.) What have I done? (You *have taken* the chalk.) What have you done, Mary? (I *have taken*, etc.) What has Mary done, Katie? (She *has taken* her pencil.)

c.—Tell the following elliptical story, pausing for pupils to supply the blanks : Felix wanted to write a letter to his grandpa.—He—his pen (Pause here for *took* and repeat *took his pen*) and tried to write "Dear Grandpa," but he found he had not—enough ink (*taken*). So he said "I will—some more ink" (*take*). Next a big blot fell out of the pen and spoiled the paper, and Felix said, "There! now I have—too much ink." (*taken*). He cleaned his pen and—another sheet of paper (*took*), saying, "This time, I will—just enough ink (*take*), and not too much."

When the small boy starts early for the pantry it isn't to avoid the jam.—*Chicago Inter-Ocean.*

Physics and Language for the Little Ones.

By SARAH E. GRISWOLD.

By means of experiments already performed the children have become familiar with some of the effects produced by heat. They know that it will change snow or ice to water, that it will change the temperature, and that it will change water to vapor. They have verified the facts shown in the experiment by the observation of similar conditions and effects outside of the school-room.

We wish to enhance the interest already aroused and direct the observation along lines that will lead to a broader understanding of heat as a force. Some simple experiments may lead them to see the effect of heat on metals, and this work will call for a repetition of words before used that will make drill on such words unnecessary. The simple apparatus necessary for this work may be easily prepared by the teacher.

A support of some kind must be arranged for a wire or small rod so that one end shall be tight and the other rest against an index which will move over a dial. An alcohol lamp and pieces of brass, copper, and iron wire, or small rods of the same, complete the materials needed. The wires must be just long enough to rest between the points named.

The iron rod is first placed in position and the children note the kind of rod used and that it is cold. They make sure that one end is snug against something that will not allow it to move, and that the other end just touches a movable index. The position of the index over the dial is also carefully noted.

The names of the materials used are written by the teacher as they are given, then by the children; and sentences given by the children describing the conditions observed, are written on the board by the teacher.

The flame of the lamp is then brought in contact with the rod, which is heated and expands, moving the index. As the children know that the tight end of the rod cannot move, they see that the rod must get longer in order to move the index. In place of the words, "gets longer," the teacher uses the word "expands," writes it on the board, and leads the children to use it in telling what has happened. The children measure the space on the dial over which the index has moved to find how much the rod has increased in length.

The lamp is removed, and while the rod cools, other sentences given by the children are written by the teacher and read by the class, telling what happened when the rod was heated. The position of rod and index are again noted when the rod is cool.

In the same way the other rods are tested, the children measuring and comparing the expansion of the different metals, each time recognizing the conditions and that heat causes the change.

During these lessons the children are frequently asked to tell by writing a word on the blackboard the kind of rod used, what the rod does when heated, what makes the rod expand and other similar points.

They thus become familiar with the use and form of the new words, and review many that have been used in previous lessons. Then when asked to tell on the blackboard what things they had in the lesson and what happened to the rod, many sentences are rapidly written.

Another simple experiment is indicated by the following sentences selected from those written on the board by a class :

"We had a piece of tin.

There was a hole through the tin.

We had an iron rod.

It would just slip through the hole in the tin.

We held the rod over the flame of the lamp.

It got very hot.

Then it would not go through the hole in the tin.

The rod was too large.

Do you know what made the rod get so large?

I will tell you. The heat made the iron expand.

Heat will make an iron rod get longer, too."

The children are asked to tell where they have seen the different metals used, and if they can to tell why one is better than another in the place where it is used. In the blacksmith's shop near by they have seen horseshoes and wagon-tires heated before being placed in position, and they are asked to tell why. The "Blacksmith Song" in Eleanor Smith's book is sure to be a favorite now for a time.

Following these lessons the children will be interested in finding which of these metals is the best conductor of heat. Pairs of wires must be provided of the same length, as brass and iron, brass and copper, and copper and iron. Each pair is twisted together for about two inches, the wires being then separated to make a fork. A support which will allow the ends of the fork to rest so that it is in a horizontal position is also necessary. A chalk box with the sides removed and the ends left standing makes a good support. The twisted ends of a pair of wires rest in a notch cut in one end of the box and the separate ends in separate notches in the opposite end. At equal distances from the place where the wires part, a shot is fastened to each wire by means of some wax.

The lamp is now placed so that the twisted ends of the wires, projecting outside the box, rest in the flame. The end of the box being between the lamp and the fork of the wires prevents the heat from reaching the wax except by passing along the wires. The falling of the shot tells that the heat has reached that point and melted the wax; and the shot falls first from the rod through which the heat passes most easily. By testing each pair, and comparing the results the children easily find the best and poorest conductor of heat.

Writing and reading are connected with this work, as indicated in previous lessons. The following are samples of the sentences written by the children after these lessons:

We had a brass rod. We had an iron rod. We put shot on to the rods with wax.

We put the lamp under the ends of the rods. The shot fell from the brass rod first.

Do you know what made the shot fall?

Written by EMMA HAJEK.

Here is a copper rod. Here is a brass rod. We put shot on to the rods with wax.

We put the lamp under the ends of the rods. The heat made the wax melt. The shot fell from the copper rod first.

Written by BLANCHE WAINWRIGHT.

Questions similar to the following were written as part of a reading lesson, the children reading the questions and answering orally or by a written sentence as directed:

"How did we fasten the shot on to the rods?"

How far from the end did we put the shot?

Where did we place the lamp?

What made the shot fall off the rods? What made the wax melt?

How did the heat get to the wax? From which rod did the shot fall first?

Why did the shot fall from that rod first?"

The number element is more prominent in this work. The shot are placed an equal number of inches from the fork on each wire. The exact number of minutes from the application of the heat till the shot falls is noted in each case. The children compare and find the difference in the time required for the heat to pass through equal lengths of different metals. A second and third shot are placed at equal distances on the same wire. The time required for the heat to pass through the second and third spaces is compared with that required in the first space.

Other equally interesting experiments along these lines are suggested in "Nature Study" under Physics for November and December.

More careful directions for apparatus are there given also.

Where there is no shop and tools are lacking with which to make apparatus, empty chalk boxes, screw eyes, and hooks are valuable articles. With a good sharp knife and a strong desire to give such work to the children, much may be done.

NOTE.—The piece of apparatus used in showing expansion of metals is made as follows: A thin piece of board about a foot long and three inches wide serves as a foundation. At each end an upright piece about five inches high is fastened.

Against one upright and near the top is fastened a slender strip of tin which serves as an index. The lower end is free. Under this end is fastened a strip of cardboard or paper having a scale of measurement drawn upon it. The distance over which the index moves may thus be easily seen.

Near the top of the index a screw hook is placed so that it supports the end of the wire that touches the index. The opposite end of the wire rests in a notch cut at the right height in the other upright.

The lamp stands under the wire on the foundation.

Physics in the First Grade.

By LILLIAN A. MILLER.

Gravitation.—Standing in front of the class drop a marble, a block of wood, a pebble, a bit of ore, a piece of paper, a feather, etc. Tell the pupils to observe what each does. Lead them to tell you that fruit drops from the tree, the rain falls, even the fleecy snowflakes come slowly down. Generalize from this: Everything if unsupported falls to the ground. Tell them that the earth is so fond of everything that it wants to draw them to itself.

We call this power of the earth gravitation. The term is not too difficult, even the "babies" taking great pride in speaking and remembering it. Tell them that we cannot see it, or hear it, or feel it, but we know it is there from the way it acts. An additional interest in the matter will be awakened if you tell the pupils that this same force holds their own little bodies to the ground and keeps them from flying off into space.

Weight.—Call several pupils around you. Ask them to place their hands behind them. Into the hands of each place objects of the same size, such as a marble and a wooden sphere, a piece of cork and a pebble, a clay and a wooden cube. Ask them which feels heavier. Tell them that those things are heaviest which the earth pulls hardest. Establish the connection between weight and gravitation.

Magnetism.—Place bits of wood, chalk, paper, brass and gold rings, a few little nails, some pins and needles upon a pane of

glass. Place a horseshoe magnet among the articles. Ask the children to observe what happens. Great is their delight at seeing the nails or needles clinging to the magnet as you lift it up. Ask them to observe how the magnet treats the wood, brass, gold, etc. It does not care at all for them. It is very fond of the needles and nails. Generalize.—The magnet attracts iron only. Tell the pupils that magnetism is another one of those forces which we cannot see. The earth is like a great magnet which attracts everything in the same way that the magnet attracts iron.

Electricity.—Hold a glass test-tube near some bits of paper. Nothing happens. Now rub the test-tube upon a silk handkerchief or upon some little boy's coat-sleeve and place it near the bits of paper. The pupils will be not a little surprised to see the bits of paper clinging to the test-tube in the same manner in which the needles clung to the magnet. Tell them that this new force is electricity, another one of those hidden things which we know about only from the way it acts. Children love those lessons best which help them to understand in a measure their own experiences. They probably all have been told that it is electricity which makes pussy's fur stand up straight, snap, and even emit sparks when rubbed. Some of them may have observed the same thing when their own hair is being combed. Tell them that these are only different ways in which electricity acts.

The same power is used in lighting our houses and propelling our cars. Conclude by telling the story of Franklin and his kite.

Elementary Geography.

By SARAH E. SCALES.

I. FORMS OF WATER.

We will take the common visible forms which are found in the daily life of the children. These are mist, fog, cloud, rain or snow, ice, dew, and frost. There is no fixed order, but these can be given as season or opportunity presents.

Cloud.—Take a day for this lesson when white clouds are sharply defined against a blue sky. Question as follows:

Look out and tell me what you see in the sky. (Clouds.)

What do these clouds look like? (Piles or heaps of snow. Perhaps some may see fanciful objects, too.)

Yes, we call them heaped-up clouds. What color are they? (White or snow-colored.)



Watch them. What do they do? (Move.) Do they always have the same shape? (No, they are always changing.)

2nd Cloud Lesson.—Note on a blue sky the thin fine clouds, which seem the farthest off.

Look again children, at the clouds. Now do these look as the others did? How do they look? Like feathers, you say. We will call them feather clouds.

Do they look as near as the dome or heaped up clouds? (No, farther away.) They are very high up and it is thought that they are crystals of snow or needles of ice, for it is very cold where they are.

At another time note the sunset clouds, with their beautiful colors. Show how they settle down like bands of ribbon in the western sky, illumined by the rays of the setting sun, which when it disappears leaves them dark. So we call them banded or layer clouds.

3rd Cloud Lesson.—For this select a day when the entire sky is overcast, but no rain is falling.

What do we call such a day as this? (A cloudy day.) Where is the sun? What do the clouds do to it? (Darken or keep the light from us and perhaps make it colder.)

What color are the clouds to-day? (Gray.) If the clouds should gather more and more and grow darker, what do you think might happen? (Rain.)

4th Cloud Lesson.—Take a rainy day, or a heavy shower.

What can you say of to-day? Look at the window panes, can you see anything there? (Probably rain drops.) What shape are the rain drops? (Round or globular.) Where do they come from? (From the clouds.)

If the clouds are very dark or black almost, what is the size of the rain drops? (Large.) How does the rain often come down in such a shower? (Pours.)

Develop kinds of rainy days, when rain falls, gently, heavily or in showers now and then.

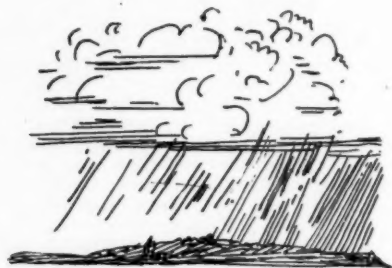
Upon what does the rain fall? (Ground, houses, plants, and flowers and bodies of water, or rivers, lakes, or ponds.) What use then is the rain?

You noticed that the rain sometimes fell on one window and

again upon another, and sometimes you said it came straight down. Can you hold your umbrellas always one way? Why not? What then do you think is the reason that the rain comes in different directions? (Wind.)

Catch some of the rain drops. How do they feel? (Warm or cold.) From which direction did they come? (Deduce that some storms are cold or warm, according to the direction of wind which brings them.)

Fog.—Have you ever seen the air so filled that you could see but a little way before you? What did you call it? (Fog.) How do the lights look through a fog? (Dim.)



What do the people who are on the water have to do when a fog comes over them? (Ring bells, blow horns, etc.)

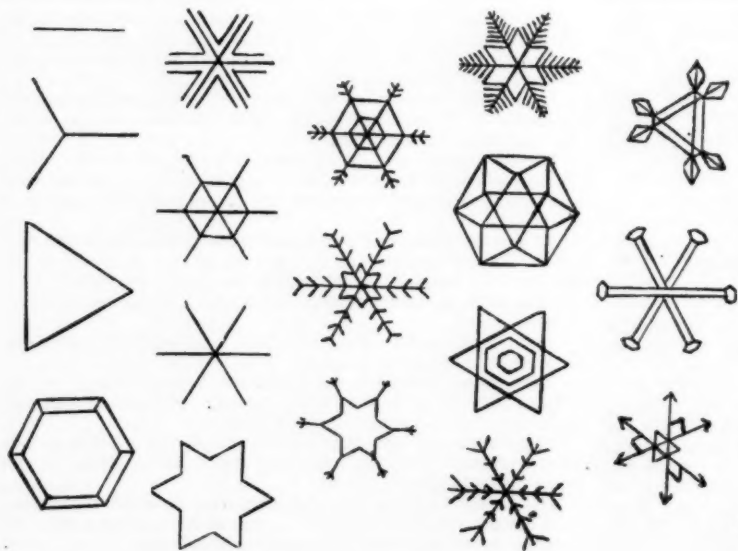
Do you remember those great dark clouds we saw the other day? These fogs are just some clouds like these close down to the ground. Men who have been up in balloons, say that when they go through a cloud it is just the same as when we go through a fog here. Sometimes the fog changes into fine raindrops, and we call it what then? (Mist.) Yes, if it keeps on what shall we soon find? (Rain.)

Have you ever been out in a mist? How did your clothes feel? (Wet.) Perhaps some of the children may have seen the fog or mist rising over low or damp places. If so, call attention to such places.

Snow.—When it is cold in winter, when clouds gather over the sky, what may we see when they get too heavy to stay up longer? (Snowflakes.) As they come down, what do they look like? (Feathers.)

Yes, some little children who live far away from here, are told this story when it snows. Way up in the sky is an old lady, who every now and then has a great house cleaning. She takes all her feather beds out of doors and gives them a good shaking. So we see the feathers flying all ways.

Still another story, is that this same old lady is picking her geese, and throwing the feathers down. (Grimm's Tales.)



What number do the little snowflakes like? (Six.) So they form themselves into the most lovely stars all having some arrangement of six. Did you ever see any of them? We will watch for them in the next storm or go out and get a few on our dark clothes in this one. (Teacher should sketch some simple forms on blackboard.)

If the lesson is given on a sunny day, ask children to make a picture of it from the windows. Uses of snow. (Keeps roots of plants warm. Serves to make houses and keep people in cold countries warm in winter. Useful in traveling, in bringing lum-

ber to market, sliding, sleighing, and any other uses which may suggest themselves to the children.)

Ice.—Place water in dishes out in a cold place till it freezes. Bring it in and question children. Of what is the ice made? Hold it up to the light? What can you see? (Light or perhaps it may be transparent.) Where do you find it? (On rivers, and bodies of water; on streets or trees; on houses and other places.)

Effect of sunlight or artificial light upon it. Sparkles, see colors in it. Used for pleasure palaces in cold cities, preserves food, etc.)

Dew.—What do you sometimes see on the grass on a summer's morning? (Dew.) What is it made of? Drops of water. Yes, the moisture in the air which we do not always see, settles upon the cooler grass and plants at night, and so they are wet in the morning. (Use of dew.)

Frost.—If on a winter morning you see upon the boards and other things something white, what do you say? (Jack Frost has been here. Look upon your chamber window some cold morning, what will you find there? Yes, a very pretty picture, perhaps, made of ice needles. Now how came they there?)

Breathe upon the window pane. What do you find? (Moisture.) Now all the time you slept your breath has found its way to the cold window and there you find it all turned to ice spittles in the morning. Make a picture of your window as you remember it, covered with pretty things made by the frost.

So you see the clouds, fog, mist, frost, dew, rain, snow, and ice are all made of what? (Water.)

The uses of these in our daily life should be noted and how dependent we are upon water for life and health.

II. WIND.

The word is such a factor in the make up of storms that a lesson here will be of benefit to the children.

Place your hand before your mouth. What do you feel? (Breath.) Breathe very hard on some paper on your desk. What happens? (Moves or falls through the air.) What made it do that? (Our breath.) Take a long breath. What did you breathe? (Air.) And when you breathed hard upon the paper what did you do to this air which you breathed? (Made it move out of our mouths.)

Take a fan. Move it rapidly; what do you feel? Air or wind. Yes, then wind is what? (Air is motion.) If you should all take large fans and move them rapidly, what might happen? (Light things blown around.) Have you ever seen bits of papers, straws, sticks, or other things blown around out of doors? What caused them to move? (The air or wind.) Does it always move at the same rate, just so fast or slowly?

Now if the air is quite still what do we call the day? (A still day.) Yes, or calm day. If the air should move a little, causing light things to change their places, what might we call the air then? (A Breeze.) How many children had their caps or other things blown away coming to school. Yes, March is a very breezy month.

If the air moves faster and makes windows rattle, trees bend, what do we call it then? (Strong wind or, if it continues, a gale.)

Did you ever see the wind? Feel it? Hear it? Yes, it roars around the houses, and down the chimneys and makes a great noise oftentimes.

Now you see if this wind blows light things around, when it meets the moisture or raindrops in the air, what it will do to them, and why we find them now on this window and then on the other.

If the wind that brings the raindrops is cold, what kind of a rain shall we have? And if a very cold wind meets them, how will they come down? (As hail.) And just the same with warm winds, they will bring warm raindrops.

Memorize which is the wind that brings the cold?

(Stories of the wind, and memory gems are quite pretty, and help to hold the interest.)

One smile can glorify a day,
One word new hope impart;
The least disciple need not say
There are no alms to give away
If love be in the heart

— Phoebe Cary.

"I find I cannot read a single issue of THE JOURNAL without getting an uplift in my work, something that will bring me to a higher ideal, and impulse to better work."

Florence, Wis.

Prin. E. D. ROUNDS.

The People of the Desert.

By ELLA M. POWERS.

Children are always interested to hear of boys and girls in other lands. We spent about fifteen minutes daily for two weeks discussing the people of the Desert. The work was presented in such a way as to stimulate thought. The children grew responsive and were eager to tell all they knew and to seek for more information.

We had been discussing prairie lands that were fertile and productive, and we tried to obtain an idea of the difference between prairies and deserts. The children said there was "no grass on the desert,"—"no rain on the desert sometimes for years,"—"and all is hot burning sand." We obtained plenty of ideas. Then came the question "Does anything grow there?" "Oh, no!" reasoned the children.

By carefully selected pictures an idea was given the children of the desert, and the pupils were encouraged to bring pictures and stories related to their work. Such questions as: Do animals live in this desert? Could they find anything to eat? Would we hear any noise on the desert?

People are obliged to cross the desert and often meet with storms. Now, what kind of storms are there, if there is no rain or no snow?

The children think and some child will finally think of wind and sand storms. Then we compare our storms and the signs with these wind and sand storms of the desert.

What happens to all this sand if the wind rushes onward so strong? Is there anything to break the fury of the storm? The children decide there are no hills, no mountains, not even houses, and as the storm sweeps on the clouds of sand grow thicker and blacker till it is dark as night and the sun is hidden.

What happens to the people there?

They hurry to get off their camel's backs and then they throw themselves on the ground wrapping their heads in their cloaks. Why? Various are the answers and among the many is one we desire: If it got in their throats it would burn and suffocate them. If there are any little boys the sand often covers them up, but when the storm is over they shake themselves and it falls off; but the people feel very uncomfortable for their skins are dry and burning.

In what do the people live? Do the Arabs live in houses? The children decide that as there are no trees there can be no wood for houses to be built with; the skins of animals would be too warm so at last they agree that there can be no houses. Robert rather timidly asks if they couldn't have tents. That is just the right idea and Robert feels delighted that his thought was such a timely one. We learn that these wandering tribes of people carry their tents with them. A few pictures are shown of the thin, open tents, and these were drawn on the board and the children copied them.

What else do these people take with them? Their flocks and herds; and when they find a little fertile spot they pitch their tents, stay a little while, then go to another place. The Arab's tent is of goats' hair woven into a strong material and stretched on poles.

How many rooms do you think they have in their tents? Some say: "One!" Others think they have more. We learn they have two rooms: one for the men and one for the women.

What sort of furniture have they? The pupils think they have none but sit on the ground, so they are pleased to know that the camel's saddles are their chairs and the sacks of wheat are used by the men who sit upon them and smoke and talk.

Some very queer articles we find in their tents, for camel-bags, cooking utensils, ostrich feathers, and bags for water are scattered about everywhere. The children often play at hide and seek among the wheat-bags which are piled about in places sometimes very high.

How do these people dress? Thick material or thin? "Thin!" comes the answer. Then we discuss fur, wool, cotton, linen, and silk garments and we are all convinced that the coolest are of linen and of silk.

They wear a long, loose linen garment and all wear a bright head-dress. A pair of yellow or bright red shoes delights a little Arab boy who wears a bright turban on his head. The women wear rings in their ears and noses. Pictures are here shown of the head-dress of Arab women and men.

What do these people eat? Question the children; get them to think. Lead them to judge that these people cannot eat fatty food, for that would heat the body. They will be ready to tell you that they eat fruits and wheat.

If a guest should come to an Arab tent, the owner would tell his wife to go to the flock and choose a lamb or kid which would be killed and dressed. This would be boiled in camel's milk. The girls often bake little round cakes of flour and camel's milk.

What weapons have the Arabs? Each one has a lance with a very sharp-pointed head. If the enemy be in front or behind him he will hurl this weapon and kill the enemy's horse.

There is nothing an Arab cannot do with his lance. The little Arab boys are early taught to use a lance, and the boys try to

see who can hurl his lance the greatest distance. When the Arab boy is older he will carry a sword and a knife.

What do the children play? The girls have dolls made of goat's hair and they dress these in ostrich feathers and beads, and the doll always has a little piece of bright silk folded into a turtle-head.

It is too hot for the boys to play foot-ball or indulge in running games. The children dig truffles in the ground. The truffle is a kind of fungus. This they eat. The Arab boys catch the jerboa. This is the rat of the desert and is a very dainty dish, and all the Arab children love jerboa.

(As we talked the children sewed upon cardboard whatever could be easily represented, as tents, dates, lances, and knives.)

These objects were also cut from paper and several lances, swords, and knives were used for number work. Some of the blackboard reading for the little ones was like the following:

Where do you live, little girl?

I live in the desert.

Do you live in a house?

No: I live in a tent.

What do you eat, little boy?

I eat fruit and bread. Do you see my lance? It is made of wood and iron.

What can you do, little boy?

I can dig and I can hurl a lance. I can play ball.

What can you do, little girl?

I can bake a cake and dress a doll and help mama.)

The Language of Number.

By ANNA B. BADLAM.

Although the ground to be covered in dealing with numbers from one to ten has become quite familiar to the teacher of the lowest grade during the elementary lessons, yet new possibilities present themselves to her mind as she dwells upon the extended development of the apparently still fertile soil upon which she is to exercise her powers. If systematic in her work she will have her little note-book of "ways and means" at hand in which she jots down from time to time some new device or method she has found successful, whether it be original or borrowed from, or adapted from the work of some other teacher.

New ways and methods, even though they lead over the old familiar ground, bring new life, fresh thought, and energy into the school-room; while, in addition, the teacher finds fresh opportunity to strengthen the weak pupils in the ranks, and learns to consider her subject still more comprehensively. Looking through the pages of her note-book she finds the following ground must be covered in the simple addition of two numbers; for no matter how well the facts have been developed in the previous lessons, they must not only be grasped by the child's comprehension, but must be held firmly in his memory at the close of the year.

Ground to be covered in the simple addition of two groups of objects. (Later, the figure work can be presented:)

I.	1	3	5	7	9	IX.	2	0	4
	+1						+5		
II.	2	4	6	8	0	X.	1	3	
	+1						+6		
III.	1	9	7	5	3	XI.	2	0	4
	+2						+6		
IV.	2	8	4	6	0	XII.	1	3	
	+2						+7		
V.	1	7	3	5		XIII.	2	0	
	+3						+7		
VI.	2	0	6	4		XIV.	1		
	+3						+8		
VII.	1	5	3			XV.	2	0	
	+4						+8		
	2	0	6	4		XVI.	1		
	+4						+9		
VIII.	1	5	3						
	+5								

Ground to be covered in the simple subtraction of one group of objects from another. Later the work in figures can be presented.

I.	1	3	7	9	5	XI.	7	9
	-1	-	-	-	-		-6	-
II.	2	4	6	8	10	XII.	8	6 10
	-1	-	-	-	-		-6	-
III.	3	7	9	5		XIII.	9	7
	-2	-	-	-	-		-7	-
IV.	2	6	4	8	10	XIV.	10	8
	-2	-	-	-	-		-7	-
V.	3	7	9	5		XV.	9	
	-3	-	-	-	-		-8	-
VI.	4	6	10	8		XVI.	10	8
	-3	-	-	-	-		-8	-
VII.	5	9	7			XVII.	9	
	-4	-	-	-	-		-9	-
VIII.	4	8	6	10		XVIII.	10	
	-4	-	-	-	-		-9	-
IX.	5	7	9			XIX.	10	
	-5	-	-	-	-		-10	-
X.	6	10	5					
	-5	-	-	-	-			

With this ground plan in mind she rapidly maps out a variety of exercises that can but tend to fix these facts in the memory, viz.: Distributing some noiseless material, as the paper board squares or six pegs for counting, she dictates to each child the group he is to arrange upon his desk—later each child makes his little statement "I have the group six," "I have the group five," etc.

The teacher then directs each child to add one more square or peg to his group. The statements then follow: "I have one more than six or seven," "I have one more than five or six," etc. Such statements as "Six and one more make seven," "Five and one more make six," etc., follow. Similar exercises to illustrate two more than a group, or the addition of two to a group, etc., should follow until the whole subject of more than is clear to the mind of the average child.

If the lesson be designed to teach less than or simple subtraction, the groups are to be assigned and each child directed to make the group one less or to take away one. Such statements as "One less than six is five," or "I have the group five, it is one less than the group six," or "One from six will leave five." Similar exercises to impress two less, three less, etc., should follow, till the thought is clear and the memory sure. It is impossible to estimate the benefit of such exercises in the language of number. I hold in mind now an abnormal case, to be sure, but, an instance of what harm may be done to a dull pupil, if allowed to pass to a higher grade before he understands the rudimentary steps of the work in number; apparently clear-headed in his other studies, the mind of this boy appears almost a blank when the ordinary questions, that should be perfectly intelligible to a lowest pupil, are asked him. Yet he has been advanced from grade to grade, and made to struggle within the meshes of the arithmetical net, in which he has become entangled. That he has some ability to grasp number he proves from time to time as some new step is developed, but the all necessary link of thought connecting the work of the lowest class with the upper class seems utterly lacking, and one is forced to believe that that link was never formed. The thought, then, of more and less must be clear in the mind of the child, and various exercises can be used to test the comprehension and ability of the child.

Work with the ball frame.—Call upon a child to move a row of six balls; upon another child to make a row equal to it; upon another to make a row one less than the standard row; upon another to make a row one more, etc. Give practical questions for the children to illustrate upon the ball frame, viz., "Sam had four cents; who will show the group to represent his money?" "His brother Tom had an equal amount of money; who will represent Tom's money?" "His sister May had one less cent than Sam had; who will represent her money?" "His brother Jack had one more cent than Sam; who will represent Jack's money?"

Develop under this head questions involving the ages of different children, viz.: "Henry is eight years old; who will represent his age upon the ball frame?" "His twin sister is just his age; who will represent her age upon the ball frame?" "His brother William is two years older; who will represent his age upon the frame?" "His brother Frank is two years younger; who will represent his age upon the frame?"

With the checked paper used for mounting the parquetry work

in the kindergarten very good and practical work can be done with lowest grade pupils of the primary preparatory to measuring groups in elementary division, viz.: Each pupil should be provided with a strip ten inches long and a pair of blunt scissors; at the direction of the teacher he makes his strip successively one inch less in length, until he has but a one-inch strip left. Putting them together in a line he realizes that he has ten one-inch strips now instead of his strip of ten; or, placing them in a pile, he gets a crude but fixed thought that ten 1's make ten, or, that a ten is the same as ten 1's; with his little row of inch strips he now proceeds to lay out groups of 2's of which he finds five; or at the direction of the teacher he begins to lay two piles till he has built two similar piles (two 5's).

Again he is told to lay his inch strips three in a group when he finds he has three 3's with a strip left over; again, he is directed to build three piles and proceeds to lay in turn a strip upon the piles he is to build; here he finds he has three in each pile with a strip remaining; he then arranges his strips in groups of 4's, when he finds he has but two with two strips remaining. Gradually this work can be extended until his mind receives a comparatively definite idea of measuring one group with another while he does not go outside of the little province of one to ten.

A collection of old postage stamps may be used successfully in connection with toy money and many a little problem interesting to the children can be worked out as they buy at an imaginary post-office two 2-cent stamps, or a 2-cent and a 3-cent stamp, etc. In connection with the toy money little lessons upon the value of money can be given, and many a thought of thrift and economy inculcated in the minds of children who thoughtlessly spend a cent at a time till ultimately a nickel or dime has been expended for candy, peanuts, or gum, which might have been more wisely, more judiciously, spent for some more lasting or useful article.

Addition and Subtraction with Splints.

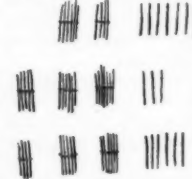
By EDITH M. ARNOLD.

The materials necessary are a box of wooden toothpicks, and a box of small elastic bands.

Make about half the toothpicks into bundles of ten each, confining them with the rubber bands. Teach numbers above ten in connection with the bundles of tens. If this is done, the children will never have any difficulty in understanding that the left hand figure of a number stands for the number of tens it contains, and that the right hand figure stands for the number of single ones.

Before beginning regular work in addition, give a short drill in "taking numbers." For example: Take 47 splints in the quickest way. Write on the blackboard how many you have. Take 13. Take 50. Take 21. Vary the drill by writing the numbers upon the blackboard instead of dictating them.

As soon as the children are able to take the sticks quickly and to place them upon the table neatly, and in their proper order, give them an example like the following:—Take 27 splints, take 33, take 36. When the splints have been placed they present this appearance:



How many ones have you in all? Sixteen. How many tens can you make with sixteen ones? One. You may each make a ten and fasten it with a rubber band. Where will you put this ten which you have made? With the other tens. How many ones have you left? Six. How many tens have you? Nine. How many splints have you in all? Ninety-six.

After several days thorough drill in this purely objective work, do the example on the blackboard while the children are working it out with the splints. Nothing need be said to them. They will not watch you closely, but will follow you sufficiently to understand what you are doing; and when, a day or two later, you request them to do an example with you on the blackboard without having recourse to the sticks, they will have little or no difficulty in doing so. Then allow the children to pass to the blackboard, and dictate examples to them. Place the box of splints upon the table, so that the children can turn to it if necessary.

It will not be necessary to do much objective work in teaching addition of hundreds, tens, and ones. The children will readily understand that if they have more than nine tens they must "make a hundred" and place it with the other hundreds.

As soon as the children are able to add without using the splints, give them a great many examples to be performed at their seats. Use problems freely, from the very beginning of the work. They prevent its becoming monotonous.

Subtraction is more difficult for the children to understand than addition is, and great care should be taken to make each

step perfectly clear before taking the next one. In order to accustom the children to "taking away" the splints, give them a few minutes brisk drill like this:—

Take 45 splints. Take away 23. How many left?

Then suddenly, without any warning, give one like this:—

Take 42 splints. Take away 27.

The children will look at you blankly, and say,—“But we can't take 7 ones from 2 ones.” Do not tell them that a sufficient number of ones from which to take 7 may be obtained by “breaking” one of their tens. They will soon discover this for themselves, will regard the discovery as *their own*, and will never forget it. Give considerable purely objective drill before combining it with blackboard work; and be sure that the children understand this step thoroughly before taking up subtraction of hundreds, tens, and ones. Use the splints for this. Make bundles of hundreds by confining ten tens with the rubber bands. A good deal of objective work, combined with blackboard drill, will be necessary. Allow the children, in their work, to write out all the processes, thus:—

$$\begin{array}{r} 11 \\ 2 \text{ } 1 \text{ } 11 \\ \$ 2 \text{ } 1 \\ 1 \text{ } 6 \text{ } 5 \\ \hline 1 \text{ } 5 \text{ } 6 \end{array}$$

They will, after a little, drop this of their own accord.

I have never found it necessary to use the splints in the subtraction of thousands, but considerable blackboard drill is needful on the following “cases:”—

$$\begin{array}{r} 9213 \quad 8301 \quad 4002 \quad 5000 \quad 5000 \\ -1754 \quad -1756 \quad -1965 \quad -1664 \quad -1605 \\ \hline \end{array}$$

I have used this method of teaching addition and subtraction for several years with good success. The children enjoy working with the splints, and, when all the steps are thoroughly understood, never make mistakes in the *process*, though they may occasionally in the number work. Try it, and by-and-by you will not have to cry despairingly, “How can I teach long division when the children can't *subtract*!”

The Digits:

WAYS OF TEACHING THEM.

Why should not the child learn as the race learned? The process may be shorter, with inherited experience and the teacher in its favor.

When early man wanted to represent **I**. When he wanted to represent **one**, he made one mark, thus: **I**. represent **two**, he made two **L**. **Three** was represented by **Z** and **four** by a square. marks, thus: **L**. presented by **Z**. Another mark was added for **five** (see cut), and still another for **six**. **Seven** extended the same figure downward. **Eight** admonished the inventor that a change of arrangement might be a good thing, and the eight marks were placed as the cut shows. The same, with an added line was used for **nine**, and the sign of **ten** took one more on the opposite side. This exhausted the number that could be counted on the fingers of both hands, and completed the foundation of the decimal system.

Rapid writing modified these forms. The following gradations will explain their history at a glance:

ILZ0609880
1220660880
1234567890

The history of the *five* indicates that those who used the original sign fell into the habit of making its parts in the following order: Slant, to right, down, to left, up. If these primitive forms are taught the child, he should be accustomed to that order which as the cut shows, will, in rapid and afterward elegant writing lead him through the same gradations that history has followed in developing our digit figures.

It would be an interesting experiment to try the effect of teaching figure writing in this way to little children. The history of figures as told in the diagram would be of interest also to older pupils.

The cut is from an article by Dr. L. R. Klemm in the *Journal of Education*.

Mental Arithmetic for Second Year.

Annie is eight and a half years old, and her brother James is twelve. How much older is James than Annie?

One day, James went fishing, and he took Annie with him. The brook was 40 yards from the house. How many feet was that?

Annie took with her, her doll, which was a very nice one. Her mamma had paid \$1.50 for it. She also took a piece of silk to make the doll a dress. The silk was worth 40 cents. How much were doll and silk worth?

Annie was seated on the grass and at work with her needle in just three minutes after they reached the brook. But it took James one-fourth of an hour to bait his hook and get all ready to fish, because something was the matter with the line. How much longer was James in making his preparations than Annie?

“Now,” said James, “we must not talk.” How many words did James speak?

Pretty soon James caught a fish weighing $1\frac{1}{2}$ pounds. How much could he sell it for at 8 cents a pound?

The fish had five fins, a tail, and two eyes. How many scales had it? (Children should learn to know when the data for a solution are incomplete, or totally lacking.)

“It will take ten minutes to clean the fish,” said Annie, “and twenty minutes to fry him. Mama likes to have supper at six o'clock. When must we go home, James?” What was James' reply?

James looked at his watch and told Annie that it was just five o'clock. Allowing two minutes for the walk home, how much longer had they to stay?

The skirt of Annie's doll's dress was half a yard around. She had hemmed all but two inches of it when it was time to go home. How many inches had she hemmed?

Annie did not work steadily. She stopped nine minutes to watch a bee, and five and a half minutes to tease a beetle with a stick. How long was she idle?

Annie and James started home at 5.28. They had been out just an hour. At what time did they set out?

HINTS FOR THIRD YEAR.

What is the date?

I have a little namesake who was born this day, 1885. How old is she to-day?

When was she five years old?

How old will she be on this day, 1894?

When she was a baby, I sent her a cloak of pale blue basket cloth, worth \$5.50, and a little hood of pale blue plush, worth \$1.75. How much did both cost?

She lives in Chicago, a city that is about 1,000 miles from here. Buffalo is about half as far. How far away is Buffalo?

Her father was in Buffalo at the time, where he stopped on his way to New York, to transact some business with the captain of one of the big boats that bring corn, and wheat, and cattle, and dressed beef from Chicago to Buffalo. How many lakes do those boats sail on? (Show map.)

The boat that Captain Jones had in charge had neither sails nor paddle-wheels. How do you think it went? That is something for you to find out and tell me some day when we are talking about boats.

Nellie's father paid \$14 fare from Chicago to Buffalo, and \$17 from Buffalo to New York. His berth in the sleeping-car for two nights cost him \$5. How much did the whole journey cost?

I will tell you his name before we go any further. It was Mr. Thompson. He spelt it T-h-o-m-p-s-o-n. How many letters?

He came to New York to buy machinery for his gold mine in the Rocky mountains. Among other things, he bought a very fine pair of scales for \$125. They were so delicate that a glass case was necessary, to protect them from the dust. He paid \$4.90 for the case. How much did he pay for both?

The express company charged him \$6.10 for taking the scales and case to the mine. Add that to the cost.

The reason the scales were made so delicately was because they were to weigh the gold in. What kind of weights were used?

A mine is a cave in the ground made by taking out coal, or some kind of ore. There is a coal mine in Pennsylvania where they take out ten tons a day. How much coal will they mine there this month?

Not 300 tons, because they do not work on Sunday. Four Sundays this month. How many work-days? And how many tons?

Digging in mines is dangerous work. Many miners are killed by the caving in of walls which they do not support strongly enough, by the explosion of gas, and by other accidents. They ought to be well paid for risking their lives. Suppose a miner were to get \$50 a week, and it cost him \$10 a week to live. How much could he save in ten weeks?

How long would it take him to save \$4,000? But instead of this, these men are very poorly paid. Some of them receive only 75 cents a day. How much is that a week?

Ores are different kinds of rock, containing gold, silver, iron, copper, lead, etc. How many things have I mentioned that come from mines? There are still other useful things that we dig out of the earth, but we will go back to my namesake. Nellie has a brother three and a half years older than herself. How old is he?

Mr. Thompson's mine is worth \$40,000. He says half of it belongs to Nellie, and half to little Eddie. How much is that to each? Some mines are much more valuable. Suppose Mr. Thompson had two mines; one, worth \$3,000,000 for Eddie, and one worth \$5,000,000 for Nellie—how much could he sell them both for?

Yes, if he sold without loss. But if he lost one-fourth of their value?

Out of one hundred pounds of rock from his mine Mr. Thompson gets one ounce of gold. How much ore is required to yield him a pound of gold? (Not avoirdupois weight.)

What would Mr. Thompson's mine be worth if it were three times as valuable? How much would that be for each of the children?

Eddie can run errands for his mama. One day she sent him for one and a half pounds of cheese at 11 cents a pound. What did that come to? Yes, the grocer made Eddie pay the extra half-cent. Eddie had a half dollar, with which to purchase the cheese. How much change did he receive?

On the way, poor little Eddie fell and left a piece of his cheese in the mud. The piece weighed one-third of a pound. How much cheese did he take home to his mother?

What was the piece worth that he lost? He also lost one-third of his change. How much had he left?

His mother did not scold him a bit, but washed the mud off his hands and kissed him, and sent him back to try to find some of the lost change.

He found six cents. What part of the amount lost was that?

Eddie is saving at the rate of three cents a week to buy Nellie a twenty-five cent picture-book. How long will it take him?

He had saved twenty-one cents at the time of the accident. How long had he been saving?

His mama said that he must pay for the lost cheese, and took the money out of his bank. How much did that leave him? Yes, she made him pay the extra third, just as the grocer had done. But she said that if it had been two-thirds she would not have made him pay it.

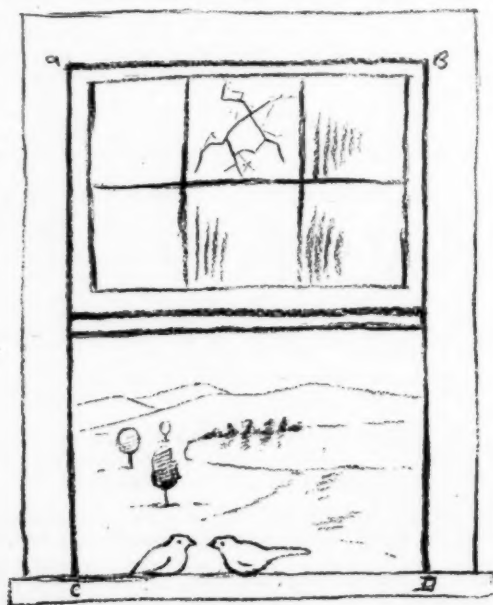
How much longer did Eddie have to save for the book?

—E. E. K., in *Common School Education*.

Primary Drawing.

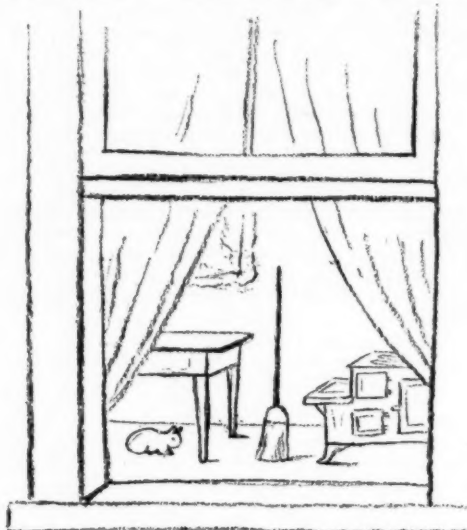
By D. R. AUGSBURG.

A little child *sees, remembers, imagines, and imitates* in the superlative degree. Who has not seen a little girl with a shapeless bundle of rags going through the movements of a mother



with a living baby? Or the little boy astride a broomstick, enjoying a ride on a real horse? Or both together, with sand and bits of tin and crockery on an old board, fancying themselves in the wholesale grocery business. This only shows how strongly these powers predominate in the child. He sees,

remembers, imagines, and then he imitates what he sees, remembers and imagines. These then are the faculties to which we must appeal to make drawing interesting to our little ones.



Here is a drawing lesson that appeals to all of these faculties.

(1) Hold the bottom face of a common crayon box toward the class. Ask each pupil to find, in the room, a form similar to it.

(2) Holding the same face toward the class ask them to draw it on their slates or tablets.

(3) Step to the blackboard and draw the form, A, B, C, D. Fig. 1, the same as the bottom face of the box.

(4) Draw attention to the fact that it is the same shape as a window. Draw a window wide open.

(5) Ask what is around the window? Casing. Draw from the pupils the name of each part of the window before you draw it.

(6) Let each pupil name some object that they could see through the open window. By skillful questions you can lead them to suggest whatever you have prepared for a lesson.

(7) Let the pupils draw with you.

(8) Use the drawing for a language lesson.

Fig. 2, is a similar lesson, only instead of looking out of the window, an inside view is given.

Busy Work.

By MACLEOD, N. Y.

ORNAMENTAL PAPER DESIGNS.

Let each pupil be furnished with scissors, a ruler, rubber, pencil, and several squares of colored paper. The scissors should be

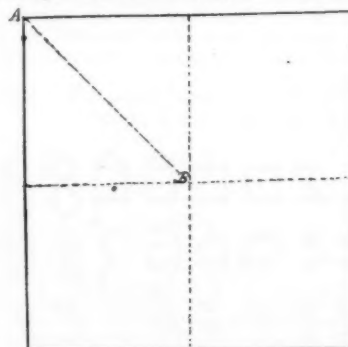


Fig. 1

four or five inches long, and for the safety of the little hands that use them, should have rounded, blunt points. Four-inch squares of colored paper are now furnished, with other manual training supplies. Bright, pretty colors should be chosen.

The designs illustrated in this article are all obtained by folding and cutting a square. The folding is a very important part of the work. It must be neatly and accurately done or the whole effect will be spoiled. Always lay the paper on a table or solid surface to fold. Do not hold it in the air. Fold from you and place the edges exactly in position, then press the fold smoothly with the thumb or forefinger. Draw the lines on the folded paper which are to serve as guides for the cutting and then cut through them

with deep, firm incisions. The tendency with children is to cut with a short, jerky motion, and a ragged, uneven edge is the result.

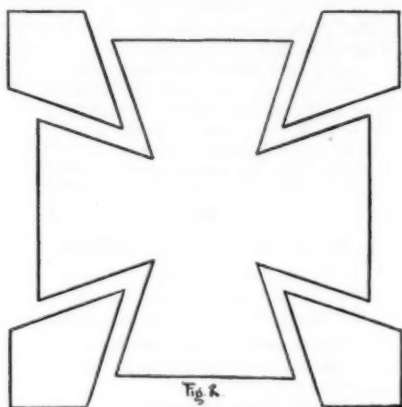


Fig. 2.

Cardboard or stiff drawing paper forms the best background for paper designs. At first this should be white, but after practice has made more perfect, delicate tints may be used for the background with good effect.

Even more care is required in pasting the designs than in cutting them. A very small amount of paste is all that is necessary for a large design. Home-made paste of flour and water is more satisfactory than the glue and mucilage sold for this purpose. The tip of the finger is the best brush. Apply the paste sparingly to the under side of the cut paper, carefully place the paper in the proper position on the background, and press it with a clean, white rag.

Simple Designs.—For the first simple designs the foldings are the same. The method is shown in Fig. 1, the folds being represented by dotted lines. Fold on the diameters and a small square will be the result. Then fold on the diagonal of this square in such a manner as to bring the folded sides together. (See the line AB.)

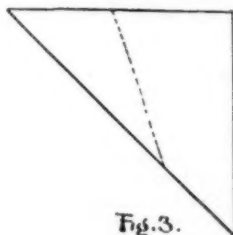


Fig. 3.

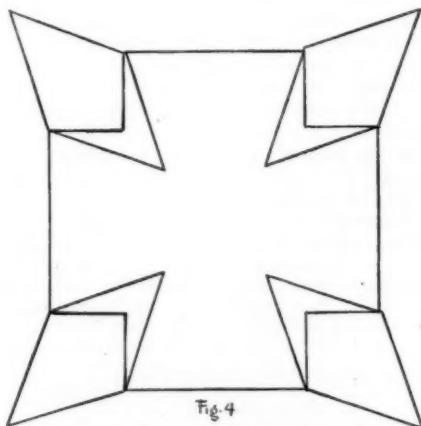


Fig. 4.

Maltese Cross.—To form the Maltese cross shown in Fig. 2, fold a square as just described and cut through the dotted line as illustrated in Fig. 3. Paste the cross on a white background, and if desired, arrange the four small pieces of the square, that are left after cutting the cross, in the manner indicated in Fig. 2, thus forming a graceful design.

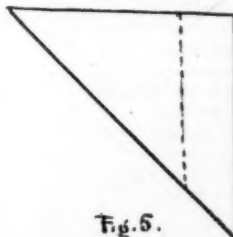


Fig. 5.

Another arrangement of these pieces is represented in Fig. 4. The plan for cutting a Greek cross from a folded square is given in the next illustration (Fig. 5.) The small squares left after cutting the cross may be arranged so as to form a design similar to the preceding ones or they may be omitted, and the cross may be pasted upon a square of white or colored paper. (See Fig. 6.)

An effective design is illustrated in Fig. 7, the result of very simple cutting. The cutting line is drawn from the end of the diagonal side of the folded paper to the straight folded side which is divided

into thirds. The line meets this side at the first point from the lower end. (See Fig. 8.) If the four triangles are reversed in

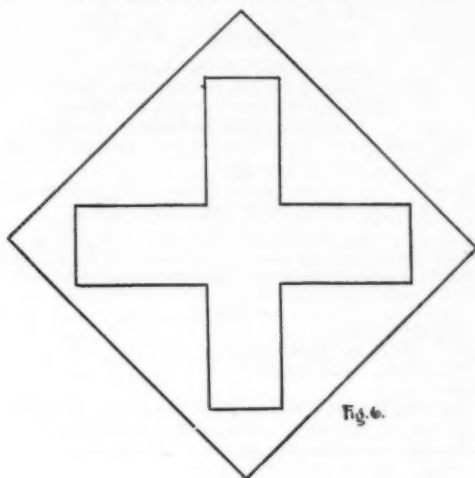


Fig. 6.

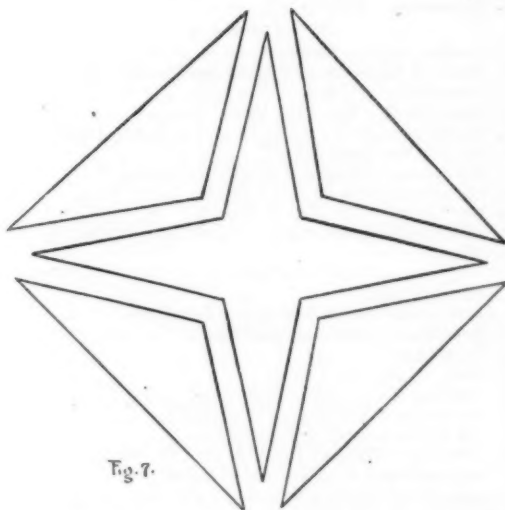


Fig. 7.

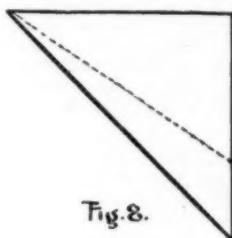


Fig. 8.

position and placed so that the long sides face the central figure, another pretty design is formed.

Cut two squares in this manner, discard the triangles and place one of the center pieces above the other in such a position, that the eight points are all visible. The star-shaped design shown in Fig. 9 is then formed. If the two central pieces are of contrasting tints and the background is white, a very pretty effect is produced.

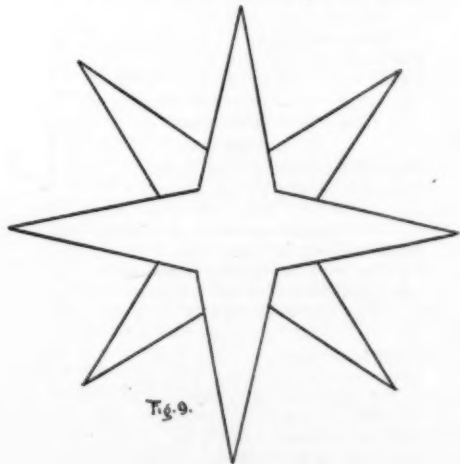


Fig. 9.

Supplementary.

March.

Crocus, Crocus, how do you do?
Many a day I have waited for you,
Now you are here the rest are coming,
Roses and birds, and bees a-humming.
—Mrs. M. F. Butts.

Programs for Arbor-Day.

(In giving these outlines for the different grades, the little work on "How to Celebrate Arbor Day in the Schools," published by E. L. Kellogg & Co., has been used as a basis for material. Numbers marked with a star will be found in that book.)

PRIMARY.

- *1. O Happy Day.
2. Short talk by an invited guest.
- *3. Recitation, "The Secret."
4. Music.
- *5. Exercise for ten or more girls, "The Daisy Nurses."
- *6. Recitation for a boy, "How to Make a Whistle."
- *7. Special exercise for nine pupils, "Little Runaways."
- *8. Song, "Merry Spring."
- *9. Recitation for a girl, "A Seed."
- *10. Recitation, "The Rain."

INTERMEDIATE.

1. Opening Song or Music.
- *2. Talk by the teacher, "How Arbor day Started."
3. Composition on Trees.
- *4. Fancy Drill, "The Pink Rose."
- *5. Special exercise for nine girls, "The Arbor-Day Queen."
- *6. Song, "We Have Come."
- *7. Recitation, "Grow and Keep on Growing."
- *8. Exercise for nine boys, "The Plea of the Trees."
- *9. Recitation, "The Vernal Shower."
- *10. Exercise for fifteen pupils, "The Poetry of Spring."
11. Music.

GRAMMAR.

1. Opening Song.
2. Composition on "Arbor Day in Our State."
- *3. Recitation, "What Do we Plant?"
- *4. Quotations.
- *5. Song, "Plant the Trees."
- *6. Special exercise, "The Coming of Spring."
- *7. Recitation, "The Fringed Gentian."
8. Talk by the teacher or superintendent.
- *9. Exercise, "Through the Year with the Trees."
10. Song and march to the tree-planting.

The aim of the teacher in preparing a program for a celebration of Arbor-day is to incorporate the feeling of the occasion in every selection. Music is, perhaps, the best for the opening and closing numbers. A march or some general exercise in the middle of the program is a good thing. Recitations that include quite a number of pupils are excellent. Without extending a program too long, it is well to bring forward as many pupils as possible. Consider the individual ability of the performers, and the result will be satisfactory.

Planting Trees.

FREDDY.

If we are all to choose and say
What trees we'd like to plant to-day,
Seems to me none can be
Half so good as a Christmas tree!
For surely even a baby knows
That's where the nicest candy grows.
Candy on a Christmas tree!
That's what pleases me!

CHARLEY.

Planted out 'twould never bear—
But after all why should we care?
The richest thing is what we bring
From sugar-maples in the spring.
So now I'll set a maple here,
For feast and frolic every year.
Sugar from a maple tree!
That's what pleases me!

WILLIE.

Sweets are good most any day.
But as for trees, I'm bound to say,
A shagbark tall is best of all
When once the nuts begin to fall.
And so a hickory tree I'll set
And piles of fun and nuts I'll get.

Nuts from a hickory tree!
That's what pleases me!

JOHNNY.

I shall plant an apple tree,
That's the best of all for me;
And each kind to suit my mind
On this one with grafts I'll bind,
Ripe or green, the whole year through,
Pie or dumpling, bake or stew,
Every way I like 'em best,
And I'll treat the rest.

—Youth's Companion.

An Arbor Day Recitation.

(For Six Children.)

By E. R. MOREY.

All Sing.—TUNE: "Lightly Row."

Sun so bright! Sun so bright,
Sending down your rays of light;
Over all, over all,
See the bright beams fall.
Where the pretty flowers rest,
Deep within the brown earth's breast,
Sunbeams peep, sunbeams peep,
Waking them from sleep.
Golden rays! Golden rays!
Emblems of the length'ning days,
Now you bring, now you bring,
Promises of spring.
At the touch the flowers wake,
Birds their joyous music make,
All is fair, all is fair,
Spring is in the air.

Mother.—Little ones, little ones whither away?

Children.—We're going together to keep Arbor day.

Mother.—How will you keep it, little folks, please?

Children.—We mean to keep it by planting trees.

Mother.—That work is too hard, little children, for you.
Leave it for older people to do.

Children.—Nay, we are ready to do our part,
Here are seeds with a tree in ev'ry heart.

We will drop these seeds within the mold,
And the earthy coverlet o'er them fold.
Then we'll trust to the promises made so sure,
That seed-time and harvest shall e'er endure.
And the Father in Heaven, shall make, in all,
The sunbeams shine, and the raindrops fall.
They'll tap at the doors of the seeds we know,
Till each tree awakes and begins to grow.
O, softly shall blow the warm South breeze,
And larger and larger shall grow the trees,
Till the ripened fruits unto us they bring,
And high in their branches the little birds sing.
Then all content we'll rest by the way,
And dream of this glorious Arbor day.

Mother.—What do you mean by this Arbor day,
And when do you keep it, tell me I pray.

Children.—It comes each year with the warm South breeze,
'Tis a holiday, when we all plant trees
Listen now if you'd have us tell,
Of the trees each one of us love so well.

First Pupil.—In her gown of gray,
All fringed with shining gold,
Dainty Pussy Willow
Comes tripping o'er the wold.
I will choose you, Pussy,
Only come this way,
Come here and be planted,
Upon our Arbor day.

Second Pupil.—I will plant an oak tree,
That's the one for me,
Here's the acorn seed
I've brought for you to see.

Third Pupil.—Here's a flaming maple,
With crimson tassels gay
Come, pretty maple, you shall be
My tree for Arbor day.

Fourth Pupil.—Stately, tall, and somber,
Comes the sighing pine,
'Mong the trees for Arbor day
She shall e'er be mine.

Fifth Pupil.—Orioles are swinging
In the elms so gay,
Graceful elm I'll make you
My tree, this Arbor day.

Together.—Thus we little children,
Our trees together bring,
But before we plant them
A little song we'll sing.

TUNE: "Prairie Flower."

All the breezes whisper
It is time to go,
Winter, with your frost-flakes,
Ice, and snow;
Spring-time now is coming
Coming down this way—
Plant your trees on Arbor day.
Yes we will plant them
Within the mold,
Let ev'ry green leaf
Then unfold.
Let the golden sunshine
And the falling rain
Start ev'ry tree
Into life again.

A Spring Festival.

By HELENA TUSKA.

What seems more fitting than when nature is awakening and all the world is celebrating the glorious Easter-tide, the birth to new life, that we should wish to bring the children in harmony with its spirit and impress the same idea upon the hearts and heads of the little ones by a festival in honor of the approach of spring.

It is well known that the feasts of the pagan nations, as well as those of the primitive tribes, were instituted in honor of the personified forces of nature. The later religions in inaugurating their holidays adapted these early observances of nature-worship to the purposes of their traditions and creeds. Applying the method of historic criticism, Fröbel discovered that the child, in its development, passes through phases, analogous to the stages incident to the civilization of the human race.

We find that among the Scandinavians and the North Germans, Frau Holda, a gentle and beautiful woman, was welcomed with triumphal processions as the Goddess of Spring. These thoughts suggest the introduction of festivals into our kindergarten, appropriate to each of the seasons; so that the children may be brought into closer touch with nature and find interest in her wonders. I shall accordingly give a description of a suitable spring festival and shall append appropriate verses in the arrangement of which I have drawn on such various sources as Wagner's *Tannhauser* and Mr. Dorr in the *St. Nicholas Magazine*.

The room has been decorated with ferns and plants so as to resemble a wood; one corner of the room has been filled with ferns and trees, one behind the other arranged from the smallest in front to the largest in the back, so as to represent a hill-side. Hidden among these trees stands a little girl, representing Dame Holda, the Goddess of Spring—Her white dress is trimmed with ferns, on her head she wears a wreath of flowers, and she carries in the one hand a magic wand and in the other a silver horn. A number of children are seated among the plants and are quite hidden by them. They wear hoods and capes of tissue paper, corresponding to the flower each represents—white, for the lily of the valley; purple, for the violet; pink, for the primrose; yellow, for the buttercup and dandelion.

To the remaining children, the teacher, after the opening exercises, tells the wonderful story of Dame Holda; of her appearance at this time of the year, of her breath, fragrant as the summer breeze; how she awakens the sleeping flowers and calls to the birds to return to the north. The kindergarten dwells minutely on all the signs of approaching spring; the swelling and opening of the leaf-buds in plants, the appearance of the spring flowers, the return of the birds and their preparation for nest-building, etc.

Following this the children sing some of the familiar spring songs: "Good-bye to Old Winter" and "The Spring Flowers," from Eudora Hailmann's "Songs and Games for the Kindergarten;" "The Spring" and "Little Brown Thrush" from "Merry Games and Songs," by Clara Beeson Hubbard.

When the children are again seated the teacher reads:

There's a wonderful lady who dwells
In the depths of the shady dells,
A wonderful lady to laugh and sing,
A magical lady, whose voice can bring
The dear birds back when her clear notes ring,
And she is Holda, the Goddess of Spring.

One day in the heart of the wood
At the foot of an oak I stood;
There wasn't a bird in the forest drear,
Not even a feather from far or near
And the babbling brook so cold and clear
Was the only songster I could hear.

I sighed to myself, Alack!
I wish that the birds were back;
And when I had spoken the last low word
A voice as sweet as a flute I heard,
Whose carol the pulse of the wood had stirred;

Then quickly I turned around
And followed the musical sound;
I followed it faster and faster still,
I crossed a river, I leaped a rill,
Nor stopped a second to rest, until
I came to a tree at the foot of the hill.

'Twas an hour before the approach of night
When I beheld a beautiful sight—
Dame Holda stepped from the mountain's heart,

(At these words Dame Holda steps from among the trees and greens, with her horn in one hand and a magic wand in the other.)

To roam o'er woods and meadow;
Sweet sounds around us seemed to start,
I longed to follow her shadow;
A lady stood on the hill-top grand,
A trumpet she held in one fair hand,
And in the other a magical wand
And she called to the birds in the southern land:

(The following verses may be sung to the tune of "Spring Flowers," in Mrs. Hailmann's Song Book.)

"Blue bird, blue bird come back to me,
The buds and blossoms wait for thee,
Come, oh, come.
I now have wakened brooks and rills,
The flowers are stirring on the hills."

(While Dame Holda is singing the last line the hidden children slowly rise. When she has concluded each child in turn sings one of the verses (corresponding to the color he is wearing) to the same tune.)

THE VIOLET. (Dressed in purple cape and bonnet.)

I am a little violet,
Among the woods I love to dwell,
I'm smiling to the sunshine,
And nodding in my ferny dell."

THE PRIMROSE. (Dressed in pink cape and bonnet.)

"I am the little primrose,
With petals of the loveliest pink;
My perfume sweet doth scent the air,
My face is always bright and fair."

THE LILY OF THE VALLEY. (Dressed in white cape and bonnet.)

"I am the lily of the valley,
Like the snow so pure and white,
I love among the vales to dwell,
And look much like a tiny bell."

THE DANDELION. (Dressed in yellow cape and bonnet.)

"I am a jolly little fellow
Who dresses in the brightest yellow,
And in the spring-time I am seen
A tripping o'er the meadows green."

THE BUTTERCUP. (Dressed in yellow cape and bonnet.)

"My stem is green and very tall,
At night I am a little ball,
But in the morning when I wake,
A lovely golden cup I make."

Dame Holda sings again to the same tune.

"Oh, fly away from the South land now,
Come birds and perch on the maple bough,
Over the rill,

Across the plain,
Above the mountain,
Fly back again.

The woods are waiting.
They sigh for thee,
Dear birds, dear birds
Return to me."

Teacher reads:

When darkening shadows fell around,
I departed, not hearing a sound,
But in the morning all silently
Back I came to the self-same tree,
And the blue-birds fluttering blithe and free
Chirped loud and gay, "We come to thee,"
And behold, surrounded by flowers and birds
Stood Dame Holda, the Goddess of Spring.
And birds and sunshine, and smiles, and flowers
She had brought with her into this world of ours.

All things seemed touched by a magic spell
Every valley and woodsy dell,
And all the birds began to look
For a shady bough or a pleasant nook
Wherein to build their tiny nest,
So snug and warm, in which to rest.

The swallow began to peer about
In the barn; 'neath the sloping eaves,
The oriole sought for a graceful twig,
Where her cradle would rock in the breeze.
The bees went to work with a right good will
To search for the flowers on the hill,
So over the fields they went buzzing away
To work all the bright sunny day.
A busy time is this beautiful spring
For birds and for bees and for flowers,
And to each little world doth she happiness bring
And joy just the same as to ours.

Editorial Notes.

The abstract given on page 238 of Prof. Ward's recent lecture on First Reading, will answer a good many inquiries that have arisen regarding the nature of the method which is succeeding so well in Brooklyn.

It is encouraging to see the rapid development of the Phonetic Method of teaching reading. In no less than three centers within the United States and Canada, special adaptations of this time-honored method have taken deep root and produced splendid fruitage within a comparatively short space of time. Other worthy efforts are going on under less favoring conditions. One indication of the growing popularity of this method is amusing. It is the tendency of one or two of the adapters to claim the Phonetic Method as personal property. "Inventor of the Phonetic Method" is the title recently assumed by one of these authors. One would have to be several centuries old to justify such a claim as that.

EDUCATIONAL FOUNDATIONS for February is a strong number. The pedagogical part deals exclusively with the discussion of Herbart's ideas on education. The readers of the magazine are earnest seekers after educational truth who know how to appreciate the value of the articles. A number like that of last month ought to add two thousand new names to the subscription list. The March issue will continue the discussion of Herbart's theory and contain in addition to this several articles on other live subjects.

In the study of current events, British politics should now claim a large share of attention. There is evidently a battle on hand between the aristocratic and democratic forces of the nation, for which Mr. Gladstone does not consider himself physically equal, and in which, furthermore, he has no disposition to engage. He has therefore resigned the premiership and Lord Rosebery has been named to succeed him. Will the Liberals follow him in the war on the 'upper house of parliament'? Some of the Radicals have said that they would not support a peer, but their opposition appears to have dwindled down to almost nothing. England seems to be on the verge of a great change. If the house of lords is abolished, will aristocracy and royalty have to go? Queen Victoria, for prudential reasons, lately advised them to withdraw some of their amendments to the parish councils bill. Will they dare to reject another home-rule bill? If so, will the nation submit?

The newspapers report that four nuns have been appointed as teachers in a Pittsburg public school in which nine out of ten of the children are Catholic. There is no religious instruction given in the school hours, but the nuns are said to wear their religious garb. If this is true the people of Pittsburg should rise to demand that the wearing of any specially religious garb should be immediately prohibited by law, lest a bad precedent be established. Dresses of this kind have an effect on children that is often far deeper than that of words. Why should ministers, nuns, priests, choir boys, etc., wear them if they know that they make no impression on their hearers?

The *Outlook* in commenting upon the fact that the shameful occurrence at Cornell spoken of elsewhere has called out criticism on the college faculties for not taking severer measures to prevent such acts, writes: "No Eastern institution of learning can equal the record of a Western college where, according to a Western college paper, a student of good standing was 'dragged by the heels down from the fourth story, tearing his back with projecting nails, shaking him up badly as he bounced from step to step, and was finally soused in a barrel of ice-cold water.' The report proceeds to say that 'the faculty at once took the matter up, and after discussing it thoroughly, decided that in order to prevent further trouble the best course would be to dismiss the victim from the school.'"

N. E. A. Announcement.

The Executive Committee of the N. E. A., to whom was delegated authority to choose the place for meeting in '94, selected Duluth, Minn., conditional upon obtaining the usual railroad rates. The committee regret to announce that the Western Passenger association, after repeated attempts to secure concurrent action, has finally declined to extend the limit of return tickets beyond July 16. This makes a meeting in Duluth impossible.

Invitations from Portland, Me., Boston, Mass., and Asbury Park, N. J., are under consideration. Asbury Park, at present date, leads in assurances of favorable railroad rates and other advantages. A decision will be reached and announced at the earliest possible date.

The publication of the Volume of Proceedings of the World's International Congresses of Education has been delayed by the unusually large amount of matter to be edited and by the translation of papers presented in foreign languages. The volume which promises to be the most valuable ever published by the N. E. A., is now in press and will be issued in April.

From "Down South."

[SPECIAL CORRESPONDENCE.]

Perhaps the most important educational event of the past month has been the interesting exercises at the laying of the corner stone of the main building of the group of new structures of Tulane university, New Orleans, La. This institution, not yet ten years old, in breadth of conception, wise adjustment to the existing conditions and needs of the state of Louisiana, variety in the arrangement of its curriculum, and especially in the ability of its faculty and the eminence of its president, William Preston Johnston, is already the most hopeful of the new universities of this group of states. In two respects it is unique. It has a thorough system of industrial and art training, incorporated as a compulsory feature of the course in the preparatory and the freshman class of the collegiate department. No university in the country, with which we are acquainted, has faced this great problem of the union of industrial and academic training in the same institution, so completely and, up to the present time, handled it with such complete success. Tulane is also the only university of the first class in the South that has established a department for the higher education of young women, in separate buildings, with a complete faculty, although included in the same general organization. The girls are admitted to all the opportunities of the industrial and artistic department of the university. In connection with this noble foundation, there has come up a brilliant environment of a free library and museum, courses of public lectures, literary, hygienic, and artistic, besides the medical and law departments of the university. The foundation of this splendid educational establishment is the bequest of more than a million dollars from Paul Tulane, and of several hundred thousand dollars by Mrs. Newcombe, for the Woman's college.

The event referred to was the proper dedication of the new site of the buildings for the boys' department of the university in a beautiful suburb of the city. The brief addresses were supplemented by an admirable occasional poem by Mrs. Mary Ashley Townshend. This lady deserves a national recognition as beyond doubt the best writer of occasional poems in the country. Three of these productions—the poem read on woman's day at the New Orleans centennial exposition, another prepared on the reinterment of Gen. Albert Sidney Johnston in New Orleans, and the present beautiful idealization of the university corner stone, would in themselves make one of the most attractive volumes of our recent poetical literature.

One of the most instructive addresses connected with education in the South has recently been published, with several other papers, by President Candler, of Emory college, Georgia. Our readers will remember this as the leading college of the Methodist denomination in Georgia, as having shared in the bounty of the late Mr. Seeny, of New York. It has also been noted as having for the two recent presidents before the accession of Dr. Candler, the Reverend, now Bishop, Atticus Haygood and Dr. Hopkins now at the head of the state institute of technology at Atlanta. Dr. Candler presents a striking group of figures to illustrate the main theme of this volume of addresses and essays; the present financial disability of the South, especially as concerns its arrangements for common schools and the academical and collegiate institutions, supported by the different religious denominations. Georgia began, almost a century ago, like all the original thirteen states, by organizing education from the top downwards. But, unfortunately, like the majority of the original states even including New Jersey, Pennsylvania, and Rhode Island, and all the Southern Atlantic commonwealths, it grew "weary in well doing" as it approached the most important part of education, the schooling of the masses of the people. President Candler asserts that, up to a recent date, his state had expended on the state university and its branches as much money within three-quarters of a century as for the common schooling of the whole people. Under these circumstances it is not strange that an influential portion of the Southern people protest against the further subsidizing of the higher education by the state, until the children have been given their chance and are in a far better enjoyment of school opportunities than at present.

President Candler shows that the state of Massachusetts with one-sixth the territory of Georgia, which has ninety thousand excess of school children, has college endowments amounting to one million dollars in excess of 12 Southern and Southwestern states. New England has one college for every four thousand square miles of territory and five dollars' worth of college property for every man, woman, or child within her borders. The twelve Southern states referred to have but one college for every seven thousand square miles, with one dollar in college property for each inhabitant. The New England boy has only half as far to go to college, with five times the financial advantage of his Southern fellow student. In 1890 the bequests to Northern colleges were more than the entire college property of the South. The Leland Stanford Junior university of California, with a cash endowment of \$15,000,000 and 83,000 acres of land, is worth more than the entire property of the colleges of these 12 Southern states. It may surprise some of our public school men to learn that of 384 colleges in the United States 288 are denominational,

representing the various Christian sects, and that 70,000 of the 89,000 college students in the country are in these denominational institutions.

When we add to this the fact that after twenty-five years of such effort as has never before made in behalf of popular education, by any people under similar circumstances, the 16 Southern states, including the three that most nearly compare with the North in this respect, are still able to keep less than 60% of their children, between six and fourteen, in average daily attendance on school not exceeding four months in the year; although expending as much in proportion to their property valuation as New England, it becomes apparent that a good deal of the loose talk about Southern education, though true enough as respects the great effort of the Southern people, is largely misleading in regard to the educational opportunity enjoyed by Southern children and youth.

Japan is said to have one of the best engineering schools in the world.

The *Atlanta Constitution* is reported as asserting that the plan of giving whites and blacks separate, but equal privileges and accommodations in schools, cars, and all buildings and conveyances intended for the convenience of the people, "works satisfactorily in Georgia."

There are now about 1,200 white and 800 colored pupils in the schools of Jackson, Tenn. The majority of the twenty-eight teachers are graduates of normal schools. The superintendent, Mr. Thos. H. Payne, is an efficient and energetic worker. There are monthly meetings of the teachers where pedagogical subjects are discussed.

The West Mt. Vernon, N. Y., school is the scene of some very interesting and instructive teachers' meetings. The History of Education is the subject which is being studied during the year. At a recent meeting, John Amos Comenius was the subject of discussion. The following topics were presented by five of the teachers: His biography, his principles, his works, his school system, and his debt to others and our debt to him.

Considerable excitement has been created in Groveland, Mass., by the issuing of an order by the school committee to the effect that roll call shall not take place in the schools until after the opening of exercises, thus giving the children of Catholic parents opportunity to stay out during the reading of the Bible without being marked tardy. There is talk of calling a meeting to protest against the enforcement of the order.

In his recent annual report Supt. Charles H. Morss, of the Milton, Mass., schools touches upon "art in the school-room." The subject is well worth the space in documents of this kind to arouse the interest of the taxpayers. The plan of providing works of art for school-rooms is, as Supt. Morss says, "the inevitable outcome of the attempt to elevate the schools to a higher plane, to make them powerful factors in character-building. We strive through history to cultivate the idea of beauty as expressed in noble living; through science to train to an appreciation of the beauty in nature; through literature to develop the idea of beauty in literary expression. There is one further step to be taken, and that is to train children to understand and enjoy beauty as expressed in plastic and pictorial art." What has been done in Milton in this direction, Supt. Morss tells in these words:

"Private generosity has come to the aid of our schools and provided them liberally with pictures and casts, which, while they are pleasing to the eye, and a culture to the aesthetic taste, are also a powerful and a constant lesson in ethics. This donation has been directly productive of great good to the children of these schools. All the work seems to possess greater vitality in the midst of these representations of the noble in art and nature. And these pictures can be and are used as the direct basis for many valuable lessons. The humanizing influence of the surroundings is apparent in better and more appreciative work by the children."

President Eliot's Report.

President Eliot, of Harvard, in his annual report recommends some thoughtful reforms in college athletics. He favors tennis, rowing, shooting, hare and hounds, bicycling, bowling, and track athletics particularly, and sums up the advantages of intelligently conducted physical exercises in these words:

"They have infused into boys and young men a greater respect for bodily excellence and a desire to attain it; they have supplied a new and effective motive for resisting all sins which weaken or corrupt the body; they have quickened admiration for such manly qualities as courage, fortitude, and presence of mind in emergencies and under difficulties; they have cultivated in a few the habit of command, and in many the habit of quick obedience and intelligent subordination; and, finally, they have set before young men, prizes and distinctions which are uncontaminated by any commercial value, and which no one can win who does not possess much patience, perseverance, and self-control, in addition to rare bodily endowments."

The exaggeration of the true functions of athletic sports which have given rise to exciting intercollegiate contests, such as boat-racing, baseball, and football in recent years have developed evils of an alarming nature. The competitive sports demand an excessive amount of time and energy at the expense of the regular studies. Pres. Eliot holds that no sport which requires of the player more than two hours a day is fit for college uses.

He shows that wanton exaggeration of the sports already in itself a great evil, is accompanied by other evils. He writes:

"The public interest in baseball and football has made it easy to collect large sums of gate money, both on college grounds and on public grounds convenient to New York and other cities. The money thus easily got is often wastefully and ineffectively spent. Again, an unwholesome desire for victory by whatever means in intercollegiate football has perverted the judgment of the players, and the college public concerning the propriety of "tricks," surprises, and habitual violations of the rules of the game as means of winning a victory. Finally, in the game of football, which at present interests the public more than any other, the same eagerness for victory by whatever means has during the last five years added to the risk of bodily injury incurred by the players."

The result of the careful consideration of the advantages and disadvantages of the competitive sports Dr. Eliot gives with these suggestions:

"If the evils of athletic sports are mainly those of exaggeration and excess, it ought not to be impossible to point out and apply appropriate checks. The following changes would certainly diminish the existing evils:

"First. There should be no freshman intercollegiate matches or races.

"Second. No games, intercollegiate or other, should be played on any but college fields belonging to one of the competitors in college towns.

"Third. No professional student should take part in any intercollegiate contests.

"Fourth. No student should be a member of a university team or crew in more than one sport within the same year.

"Fifth. No football should be played until the rules are so amended as to diminish the number and the violence of the collisions between the players, and to provide for the enforcement of the rules.

"Sixth. Intercollegiate contests in any one sport should not take place oftener than every other year.

"Finally. If trial should prove the insufficiency of all these limitations, intercollegiate contests ought to be abolished altogether."

Glimpses of a Prussian Normal School.

By THEO. B. NOSS, Prin. State Normal School, California, Pa.

In Köpenick, a town a few miles from Berlin, is one of the one hundred and twenty-one government normal schools of Prussia. The school occupies an old royal palace, used as such in the time of Frederick the Great and before. In the present hall of the school, a richly decorated room, Frederick the Great, when crown prince, was tried by a court-martial on a charge of desertion. He barely saved his life. His comrade, who was less guilty, was executed before the prince's eyes.

But this has nothing to do with our story. If the building is rich in historical associations, it is rather poor in the accommodations possessed by most modern school buildings. A park of several acres, thickly covered with linden trees, is one of the treasures of the school. Another is a great expanse of water, adjoining the park, well used by the students for boating and bathing in the summer, and for skating in the winter.

One hundred and eleven of the Prussian normal schools are for male students, the other ten for female. There are none for both sexes.

In fact, with the rarest exceptions, all German schools, from the primary to the university, are exclusively one-sex schools. The Köpenick normal school (or "teachers' seminary," the name everywhere used in Germany) is for males. It has 106 students exclusive of the practice and preparatory pupils. This makes it one of the largest in the kingdom, the average number of students being less than 100. The organization of all these normal schools is the same—a three-year, uninterrupted course; three classes, averaging about thirty in a class; a corps of instructors including a principal (called "director") and six teachers paid by the state; tuition free; all students residing in the school; a practice school in which each student teaches one hour daily during the entire third year.

At Köpenick the practice school consists of 75 children.

A written plan for the teaching of each lesson has to be submitted in advance to the teachers in charge of the respective department. Each professor is also critic teacher so far as his subjects go.

I was especially interested in a music lesson that I observed. The three normal classes were united for this exercise, and the singing was such as would be expected from a hundred well-trained German voices. A grand piano and pipe organ were used for the accompaniment.

I noticed in this school, as in other normal schools visited, that apparently every student sings. It seems to be taken for granted that all can sing. Not only is proficiency in vocal music required, but in instrumental also. The school seemed to me, as I went from room to room, to be full of violins. The music instructor told me that every student has instruction in both violin and piano.

The students of this school (and of several other German normal schools I have visited) do not room singly or in pairs, as in American normal schools. Two large attic story rooms are filled with single beds or cots, and here the students sleep—about fifty in a room. A monitor is appointed to see that the order is satisfactory. A large room on the floor below is supplied with wash-bowls and towels, and serves as the common wash-room. For study, students are assigned to large rooms specially provided for that purpose, a dozen or more in a room.

As in all other schools in Germany, the normal schools are in session every day in the week except Sunday. Fortunately for teachers and pupils, holidays are generously scattered along through the year.

California.

The Oakland high school has 725 pupils. Stanford has registered 953 students. The pupils of Oroville can lunch on oranges during their recesses. There are over one hundred orange trees on the grounds. A class of fifty-two graduated from the San José normal in February.

Prof. Jos. Le Conte has been selected president of the California Science Association.

Stanford dropped twenty-five students from the register for neglect of work last term.

Stockton has 2,788 pupils enrolled. The corps of teachers numbers 52.

The current number of the *Pacific Journal* contains sketches of several educators of California.

The schools of San Francisco take turns in furnishing lunches to the poor laborers of the city. Oakland and Alameda have followed the example set by San Francisco.

Tuesday, March 13, will be Teacher's Day at "Sunset" city. A large concourse is expected.

George Cable lectured to the students of Chico normal. Joaquin Miller delivered a lecture on "Student life at Oxford." Prof. Brown, Prof. Gayley, Pres. Jordan, of Stanford, Pres. Kellogg, of California, Gen. W. H. Barnes, and Hon. J. P. Irish will favor the school before the close of the term.

Prof. Gustav Larsson lectured to the students of Los Angeles normal in January.

San José normal has had lectures from Pres. Jordan and Prof. Schaberle.

The payment of taxes in two installments works hardship in the school department, especially in the poorer counties. The last appropriation is received after the end of the school year.

First grade certificates were made good for six years by an act of the last legislature.

The San Francisco *Examiner* gave all the school children of San Francisco, numbering about 25,000, free passes to the Mid-winter fair on Feb. 23. Last year this paper sent twenty-one pupils to the Columbian exposition. One was sent to the Paris World's fair by the same journal.

New York City.

The New York Society of Pedagogy announces the following lectures for this month:

March 5, 7, 19—Arithmetic in the Grammar Grades. Edward A. Page; March 7 and 21—History of Pedagogy, J. W. Davis; March 14 and 26—Freehand Movement in Writing, J. T. Nicholson; March 28—Language Work in the Primary, E. D. Farrell.

The School of Pedagogy has been invited to a paper by Gen. Francis A. Walker which will be read at the residence of Mrs. Henry Draper on March 10. The subject of the general's paper, is "The Relation of Professional and Technical to General Education."

The annual dinner of the Press Club given at the Hotel Marlborough last Tuesday was one of the finest and most enjoyable given by the club. Among the speakers was Dr. De Witt Talmage who made an eloquent address as usual. The surprise of the evening, however, was the speech of Mr. Simon Ford, proprietor of the Grand Union Hotel who, for three-quarters of an hour kept the company in a constant roar of laughter. Mr. Ford has placed himself on record as one of the most entertaining speakers in this city.

Leading Events of the Week.

The "Greater New York" law meets with much favor in New York and Brooklyn.—Mr. Gladstone resigns as premier and Lord Rosebery succeeds him.—The Russian commercial treaty warmly debated in the German reichstag.—The officers of the *Kearsarge* claim that Roncador reef is located five miles out of the way on the sailing chart.—Congressman William L. Wilson reported out of danger.—Death of William F. Poole, LL.D., author of "Poole's Index to Periodical Literature."—Jubal A. Early, the celebrated Confederate general, died.—Mr. Gladstone declines a peerage.—Pope Leo celebrates his eighty-fourth birthday March 2.—Persia decides to stop coining silver.

Keep Up with the Times,

don't cling to the imperfect things. Do you use cereal foods on your breakfast table? Then you need cream. Borden's Peerless Brand Evaporated Cream is decidedly superior in richness and flavor to ordinary milk or cream.

Correspondence.

1. What are the different movements used in writing?
2. At what age should pupils begin to write, and how long should they continue it before leaving the subject?
3. How would you secure accuracy in writing the elementary forms?
4. Define the elements of small script letters.

A SUBSCRIBER.

1. The finger movement, producing rigidity of grasp, cramped style, fatigue of muscle, and degeneracy of penmanship in those who have to write much and rapidly; and the arm movement, producing ease of grasp, flowing style, ability to write much without fatigue and permanently good hand.

2. As soon as they have anything to say in writing. As long as they have anything to say in writing.

3. By keeping the perfect forms constantly before the children; by cultivating in all things their artistic taste and desire for neatness; and by giving them the ability to reproduce these forms through training of the muscles in movement exercises.

4. The principle elements and the main-stroke, the right curve and the left curve. See articles on writing in THE PRIMARY JOURNAL of October and December.

1. How shall I get my averages?
2. I saw in Butler's Grammar that the past tense for *lie* is *lay*. Is this correct? If it is, please give examples.

L.B.

1. The querist will hardly recognize her two-page question in the single line to which we have condensed No. 1. In this case, our answer is, don't get them at all. You cannot possibly "divide a boy's deportment by 22," because his deportment is not a definite quantity. The credit system has been abandoned in all wide-awake schools. It is an impossibility where good teaching is done.

2. The following are examples of *lie* in the past tense. I *lay* down for a nap. The document *lay* on the table before me. The decision *lay* with the older sister.

What confuses you, and many other teachers, is that there are two verbs, whose principal parts are respectively:

Lie, lay, lying, lain, and
lay, laid, laying, laid.

Lay being the preterit of one verb and the present form of the other, necessitates sharp discrimination in its use. Remember, however, that *lie* and its principal parts can have no object, while *lay* and its principal parts *must* have an object. It is wrong to say to the dog, "Lay down, sir!" He can *lie* down, but he cannot *lay* down. If he were a grammarian he would ask you, "What shall I lay down?" He can lay his bone down.

Practice making sentences using these verbs, as: I *lie* awake too much at night. I *lay* awake from 10 until 12 last night. The cow is *lying* down, chewing her cud. She has *lain* there since noon. I *lay* my treasures up in heaven. I *laid* the knife in the box. I am *laying* plans for a pleasant summer. I have *laid* out all my work for next week. "Now I *lay* me down to sleep" is correct.

It is very necessary that you should have clear notions about *lie* and *lay*, in order that you may train your pupils to use them correctly in ordinary speech and prevent their growing up with the same confused ideas that so many otherwise well-taught adults have upon the functions of these two verbs.

You speak of making a chart with a "rubber marking pen." I have not been able to find one and would be glad of an address to which to send for it. I have been much interested in the objects made of papier-mache that have been mentioned at various times. I had not seen it spoken of till I saw it referred to in THE JOURNAL, though I have since. I noticed one of your correspondents speaks of preparing it by a receipt given in an old JOURNAL. If it is not asking too great a favor I would like very much indeed to have it repeated. It would prove a great assistance to

A BUSY TEACHER.

A better marking pen than the rubber is the steel one. This, we think, can be found in any well-stocked stationery store.

The receipt for papier-mache given by Dr. Maltby in THE JOURNAL some time ago was as follows:

Take some common newspapers and tear them into irregular bits about one inch square. Put these pieces into a common wooden pail until it is about two thirds full. Pour over the paper enough boiling hot water to cover it, and let it stand four or five hours. Drain off the excess of water until the wet mass of paper lies as a pasty body at the bottom of the pail. Now take a rough stick—the rougher the better—and thrust it down into the mass again and again, grinding and beating the paper until it becomes a pulpy mass. Two rough sticks will be better than one. In ten minutes a boy can prepare enough pulp for three or four maps, if the paper has been soaking during the night. Do not attempt to use glazed paper. Many fail to make the pulp because they pour water over the pieces of paper, and then, without draining off the greater quantity of water, stir the bits round and round in the water. The sticks must be "jobbed" down into the moderately dry mass. A friend of mine makes the mass into balls and grates these upon a common tin grater. She has succeeded in making splendid papier-mache in that way. White scratch-book paper may be used where a better class of pulp is

to be made. There can be no simpler recipe for the making of paper pulp. A primary teacher in Baltimore uses the *pulp in place of clay*, claiming that it is cleaner and cheaper, as it is undoubtedly.

How Critics Differ.

Exception was taken by several correspondents to an exercise upon the extravaganza given in THE JOURNAL some months ago. As the question they brought up was a very grave one, we printed their letters. Opinions have not been lacking, however, supporting the exercise in question and they still come to hand occasionally. Every once in a while some reader, looking through back numbers, reads up this correspondence, refers to the exercise, and "takes sides." The uprising against the critics who accused the article of a tendency to teach lying is almost as great as the anxiety which prompted said critics to write. We have received many letters thanking us for the exercise and begging us to go on doing all we can to take the "humdrum" out of the school-room.

We cordially thank both classes of critics. There is earnest thought on both sides of this question, and when this is true, there is always more or less harmony of opinion, though it may not appear on a first statement of the apparently conflicting positions. Could these people get together and talk, they would find that, though they represent two different types of character, the grave and the sunny, they do not differ fundamentally on ethical and pedagogical questions.

We trust our critics will keep on writing. We regard them all as friendly, even when they find fault with us. Friendly fault-finding and encouragement alike do us good.

I thank you for THE SCHOOL JOURNAL. I would say that I get enough inspiration out of some numbers to pay me for the year's subscription price were it possible to measure inspiration by so low a standard. To catch the teacher's spirit and to rouse the humble, earnest learner's spirit is my aim; you help me.
D. L. E.

Coughs and Colds

are only the beginning. Lungs are weakened next, the body becomes emaciated, and then the dreaded Consumption Germ appears.

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New Books.

Scheffel's *Ekkehard*, although acknowledged to be a masterpiece of German prose on account of fine humor, forcible language, and presentation of interesting phases of German life, and thought, has been excluded from the school-room hitherto on account of its length. The bar to the school reading of this strong historical story has been removed by Carla Wenckebach, professor of the German language and literature in Wellesley college, who has compressed it into much smaller compass and furnished it with an introduction and notes. The volume belongs to Heath's Modern Language Series. (D. C. Heath & Co., Boston. 75 cents.)

Singing in school is a matter of such importance that it cannot be too much encouraged, and there is use therefore for every good book that will aid in that delightful and beneficial occupation. *The School Singer* is the title of a collection of favorite songs, choruses, and chorals for schools that has been made by George A. Veazie, supervisor of music in the schools of Chelsea, Mass. Much of the music is Mr. Veazie's own composition. The collection will be a useful one, as the songs are all moderately difficult and there are selections for such special occasions as Arbor day, Memorial day, Exhibition and Graduation days, etc. The department of "Operatic Selections," with biographical sketches of noted composers, will be found an entertaining and instructive feature. (Ginn & Co., Boston. 60 cents.)

Portugal is a small country, yet its glorious record in discovery and colonization in the fifteenth and sixteenth centuries lends to its history an interest second to that of no other European nation. A history of this country of moderate size, and written in an attractive and popular style has been prepared by W. A. Salisbury, under the title of *Portugal and its People*. The account of the Roman occupation, of the barbarian invasion, of the battles with the Saracens, and the unfortunate union with Spain are told in a graphic manner, while no less in interest will be the chapters on more recent events, including the doings of the Portuguese in Africa, Asia, and America. The chapter on modern Portugal considers the condition of its people and their progress as regards husbandry, mining, manufactures, and government. There are a number of illustrations, including a frontispiece portrait of King Carlos I. (T. Nelson & Sons, London, Edinburgh, and New York.)

The science of political economy is one that is continually changing, for there is great difference of opinion in regard to its main points, even among those who are regarded as experts. Still this should not be cited as an argument against its study. It matters a great deal to the nations whether protection or free trade, for instance, shall prevail, and probably the experience of mankind will settle the question at some time. In the meantime it is well to take advantage of all the experience that can be gathered from the past, in order to help decide such questions. The work of J. Shield Nicholson, M. A., D. Sc., professor in the University of Edinburgh, covers practically the same ground as that

of Mill, though it gives in addition the latest results of the best thinkers. The author acknowledges, however, that he really owes more to Adam Smith than to Mill, for while the latter lacked historical knowledge a great part of the "Wealth of Nations" is history of the highest order. The treatise has two main divisions—production and distribution—and under these are considered all the processes and laws that enter into and govern the complex relations of modern industry. The author is a very careful writer and seems rather inclined to give all that has been thought on a subject than to draw hasty, ill-digested conclusions. Those who wish to gain a knowledge of the historical aspect of the subject especially, will find this book of great assistance to them. (Macmillan & Co., New York and London. \$3.00.)

The Story of John Trevennick, by Walter C. Rhoades, is a pleasant tale of the south of England, in which smuggling is introduced to give a spice to the narrative, and love plays a prominent part. The characters are natural, the dialogues lively, and the story constructed with considerable skill. (Macmillan & Co., New York and London. \$1.00.)

Teachers and students of drawing will be interested in a *Transparent Drawing Slate* recently invented. Its use is briefly as follows: The drawing is made freehand on the slate when the flap is behind the glass which then appears white. To test the drawing the slate must be held at right angles to the direction in which the object drawn is seen, and the flap may be allowed to drop below the slate or be held above it. The drawing is held so as to appear to cover the object. A few experiments will show how large the drawing should be, and that the correct drawing will appear to cover the object, while the lines of an incorrect drawing will not. The wax pencil made for marking on this slate also marks upon china, metal, or any polished surface and is also valuable for artistic sketching upon paper. (Ginn & Co., Boston.)

In the Religion of Science library is issued a volume containing three lectures on the *Science of Thought*, by F. Max Müller, the world-renowned philologist. There is also an appendix containing a correspondence on "Thought Without Words," between F. Max Müller and Francis Galton, the duke of Argyll, George J. Romaine, and others. (Open Court Publishing Co., Chicago. 25 cents.)

Bright Light is the cheerful name of Mr. S. W. Straub's new singing book for Sunday schools and young people's meetings. Mr. Straub is a veteran composer and compiler of books of this class. This book we find upon thorough examination is full of fresh and beautiful songs that children and all will learn quickly and enjoy greatly. Over one hundred hymn writers and over fifty composers are represented, making the most refreshing variety. *Bright Light* is a volume of 208 pages. (S. W. Straub & Co., 245 State street, Chicago. 35 cents. A copy will be sent for examination for 20 cents.)

Searchers after truth will draw considerable material for thought from Dr. Paul Carus' little book on *The Religion of Science*. He maintains a respectful attitude towards all earnest truth-seekers in all ages. The various topics of which he treats are



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principles, faith, and doctrines; the authority for conduct; ethics of the religion of science; the soul; immortality; mythology and religion; Christ and the Christians—a Contrast, and the catholicity of the religious spirit. (Open Court Publishing Co., Chicago. 50 cents.)

A large volume of 572 pp. containing a *Catalogue of the Russian Section*, at the World's fair, gives an idea of the resources of that immense empire. Each of the departments of agriculture, horticulture, fish and fisheries, mines and mining, machinery, transportation, manufactures, woman's work, electricity, fine arts, liberal arts, etc., is well represented. Russian money and measures have been followed, but comparative scales of the Russian and foreign units are also given. (Published by the Imperial Russian Commission, St. Petersburg.)

No. 123 of Maynard's English Classic Series is *The American Scholar*, by Ralph Waldo Emerson. This is an address delivered at Cambridge in 1837 before the Harvard chapter of the Phi Beta Kappa society, and is considered one of his most thoughtful and finished productions. The book contains a biography of Emerson, critical opinions, and explanatory notes. (Maynard, Merrill & Co., 43 East 10th street, N. Y.)

Literary Notes.

—*Snap Shots with an Old Maid's Kodak*, by the author of *Preston Papers*, has just been published.

—A small four-page monthly of an educational character called the *Search Light* has just been started at Trappe, Maryland. Its purpose is "to search for truth and reflect the light of truth."

—*A Brave Baby, and Other Stories*, by Sara E. Wiltse, issued by Ginn & Co., has many stories based upon Norse mythology. Miss Wiltse has approached this ancient fountain in the spirit of the myth-loving modern child.

—The *Regents Bulletin* No. 22, September, 1893, contains the proceedings of the 31st university convocation of the state of New York, July 5-7, 1893. It has addresses, reports, etc., and eulogies on George William Curtis and Francis Kernan.

—Ginn & Co. will have ready in May *A Book of Elizabethan Lyrics* selected and edited with introduction, notes, and indices by F. E. Schelling, professor in the University of Pennsylvania. It covers the period from the publication of "The Paradise of Dainty Devices" to the death of John Fletcher (1575-1625).

J. B. Hertzog has made translations of "Thanatopsis," Samuel Rogers' "Geneva," Scott's "Love of Country," Campbell's "Exile of Erin," and Henry D. Wireman's "My Country," which has been published in pamphlet form by I. Kohler, 911 Arch street, Philadelphia. The English and German are given on opposite pages.

—A pamphlet printed by W. P. Titus, Clarksville, Tenn., by George D. Free, A. M., is entitled *History and Civil Government*. It gives a condensed history of the United States together with the main points of its government in the form of questions and answers. There is also a vast amount of information in addition.

—The *Home Teacher* for February, a paper published at the Essex county asylum, Newark, N. J., contains an address by Dr. M. H. C. Vail, county superintendent, at the South Orange public school and a portrait of G. J. McAndrew, A. M., the principal; also a portrait of Bishop Wigger, besides portraits of many people of local prominence.

—No. 2, New series, of the publications of the American Institute of Civics, 38 Park row, N. Y., contains articles on "Congressional Reform;" "Education of Politicians," by Casper T. Hopkins; "Some Principles in Economics and Politics," by Arthur Latham Perry, LL. D.; "Party Government on Trial," and "American Institute of Civics."

—G. P. Putnam's Sons will publish at once *The Story of Margrethel*, being a fireside history of a Fifehire family, by a new writer. This will

doubtless attract much notice. They have also in press *The Natural Law of Money*, by William Brough, wherein the successive steps in the growth of money are traced, and *The Sphere of the State*; or, *The People as a Body Politic*, with special consideration of certain present problems, by Frank Sargent Hoffman, A. M., professor of philosophy, Union college.

Magazines.

—In the March number of *Current Literature* is given a wonderful amount of interesting matter on the marvels of modern warfare, smokeless powder, nitro-glycerine boats, fog-balls, torpedo finders, disappearing gun carriages, the balloon in war &c.

—Appleton Morgan opens the March *Popular Science Monthly* with a severe arraignment of prohibition under the title "Abolish All Prohibitive Liquor Laws." He denounces these laws as ineffectual and inexpedient and as standing in the way of better remedies for intemperance.

—A paper of great advantage in the March *Atlantic* is "A Greek Prime Minister: Charilaos Tricoupis," by Professor Jeremiah W. Jenks of Cornell. The career of this man, the greatest statesman of modern Greece, who has been in political life for over a generation, is very interestingly told, and the article is virtually a political history of Greece for the last thirty years.

—Prof. Edward S. Holden, of the Lick observatory contributes an article on "Earthquakes and How to Measure Them" to the March number of *The Century*. The science of measuring earthquakes, he says, is one which had its birth in the city of Tokio only a few years ago. As there is an average of two shocks daily in Japan, it is no wonder that the savants of that land have turned their attention to the study of this subject.

—The homes of the miners in the Mojave desert are graphically described by John R. Spears in the March number of *The Chautauquan*. The article is accompanied by numerous illustrations. The large part played by our financial magnates in the national progress is clearly set forth in an article by the Rev. S. Parkes Cadman, entitled "What Millionaires Give to Schools." The front-piece is a portrait of Thomas A. Edison.

—*The Forum* (March) begins the seventeenth volume with an innovation which it is hoped will prove very useful to serious students of current problems. At the end of articles of such subjects as "The Income Tax," "The Program of the Nationalists," and other kindred discussions, is published a brief list of the most instructive books and articles bearing on both sides of these discussions, so that a reader may follow his studies further than any Review article can take him.

—Recent issues of *Harper's* have been noticeably strong in short stories. The March number contains five: "The Buckley Lady," a love story of colonial New England, by Miss Mary E. Wilkins; "A Partie Caree," a history of a yachting cruise in the Mediterranean, by W. E. Norris; "An Undivided Tragedy," a romantic tale of English country life, by Miss Laurence Alma Tadema, daughter of the well-known painter; "At a Private View," a sketch of New York life, by Brander Matthews; and "Cache-Cache," a story of the French Revolution, by William McLennan.

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General Notes.

The School Library number of Harper & Brothers' Bulletin of Text-Books for Schools and Colleges is a very interesting publication for teachers. Portions of a voluminous correspondence are contained in it, showing that in many states there is a strong sentiment in favor of the establishment of libraries for schools, not as an embellishment, but as an essential in the educational system. A brief and extremely suggestive history of school district and public libraries is contributed by Melvil Dewey. A few words reprinted (by the author's permission) from the *Atlantic Monthly*; enthusiastic suggestions from Nebraska are given; the value of school libraries in connection with class-work is set forth by a correspondent of wide experience; and an interesting paper is presented for the first time, entitled "School Libraries in the Past." Five lists have been presented from the publications of Harper & Brothers of books suitable for school libraries. In list No. 1 are given twenty-five standard works for \$10; in No. 2, a \$25-dollar school library; in No. 3, a \$50-dollar library; in No. 4, a \$100-dollar library, and in No. 5, a larger school library. Every teacher should have this bulletin.

The warm weather of the past two days has reminded us that spring is here. The merchants have been preparing for it, and there is a prospect of a brisk spring trade. James McCreery & Co., Broadway and Eleventh street, N. Y., have increased assortments of new spring woollens opened for this week's trade including a special shipment of straight crinkle crepon, cross-striped grenadines, and novelty wool chiffon; also black grenadines with narrow stripes in colors. There is the greatest range of silk and wool fancy dress fabrics obtainable, besides new leghorn tweeds in solid shades and very neat mixtures, and shaded lansdowne for waists and full suits.

A volume that contains all of the poems of Gray that are of any real interest and value, and the prose selections include the *Journal in the Lakes* entire, and extracts from his letters of autobiographical and literary interest, has just been published by Ginn & Co. The introduction, besides containing a life of Gray, a biography, etc., gives a summary of his historical significance, with a critical review of his work. A special feature will be an article on "Gray's Knowledge of Norse," by Prof. Kittredge of Harvard.

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The necessity of a spring medicine is universally admitted. This is the best time of year in which to purify the blood, to restore the lost appetite, and to build up the entire system. The great popularity attained by Hood's Sarsaparilla, owing to its real merit and its remarkable success, has established it as the very best medicine to take in the spring. It cures scrofula, salt rheum, and all humors, biliousness, dyspepsia, headache, kidney and liver complaints.

It is understood that the History of the United States Navy, upon which Edgar Stanton Maclay has been engaged for the last nine years, is now nearing completion. It is a curious fact that no complete history of the navy has been published since Fenimore Cooper's time, and Mr. Maclay's elaborate work will meet a demand which has grown stronger since the public became interested in the building up of our new navy. Mr. Maclay's history comes down to 1894.

Moltke as a Correspondent, published by Harper & Brothers, presents a carefully selected group of letters from the deceased field-marshal, many of them of peculiar personal interest. They are translated by Miss Mary Herms.



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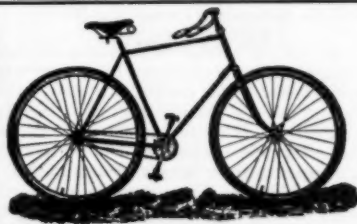
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Yang Yu, the new Chinese minister at Washington, has quickly made himself felt as a personage of importance at the capital. His legislation is the only diplomatic establishment that flies its national flag at all times to distinguish it from other domiciles, and the minister's equipages outshine those of all his diplomatic colleagues in elegant correctness. The minister is rapidly acquiring English, and his wife has her English teacher as well. Mrs. Yang returns the calls of diplomatic families, and the quaint little figure in gorgeous attire, flowered head-dress, and three-inch shoes brightens many legation drawing-rooms and dinner tables.—*Harper's Bazar*.

The question is often asked whether Bovinine is a patent medicine or not. To all inquirers we would say that Bovinine is a food prepared from fresh beef, and is not only intended for invalids, but for hearty people. A tablespoonful mixed with milk or water supplies the place of a hearty luncheon. Albert Schock, the champion bicyclist, subsisted nearly the entire 144 hours on Bovinine during the champion bicycle race, and praises it highly.

If children were all of the same size there would be no necessity for having different sized desks. One cannot fit the boy to the boy to the desk, so the desk must be fitted to the boy. This is exactly what can be done with the Adjustable Furniture of the Chandler Adjustable Chair and Desk Co., Boston, Mass. They are made in different sizes of red birch, mahogany finish, and are provided with lid-top, pencil tray, etc. Builders of school-houses who wish to consult the comfort of the children should look into the merits of this furniture.

Major Sir G. S. Clarke, a leading and yet young officer in the English service, replies in the last number of the *North American Review* to Mr. Andrew Carnegie's proposal for a naval union with Great Britain. Sir George favors Mr. Carnegie's "sentimental side" of the question, for, as he writes, a common language, a literature assimilating thought and commerce "must readily draw the two people together. But, for all that, England is not prepared to throw aside her crown and give up her many responsibilities.

The teacher who is worn down with hard work will find real relief in bicycle riding; yet when he purchases a wheel he must look well to what he is buying, for there is often as much deception in a bicycle as in a horse. The Warwick is well liked for it gives a large amount of pleasure for a given expenditure of strength. Though light it is rigid, is an easy runner, and a fast roadster. A description of these machines will be sent free by the Warwick Cycle Mfg Co. Springfield, Mass.

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Dr. H. D. Chapin, one of the best-known young physicians in New York, has for a number of years had under his charge the children's wards in several hospitals. As case after case has come under his supervision, he has taken the trouble to make thorough study, not only of the child's physical condition, but whenever possible of its parentage and of its antecedent conditions. Having kept a complete record in this very full and interesting way for a number of years, he found at last that he had the history of 600 hospital children. Such an investigation, of course, contained a large number of most instructive facts, instructive from a physician's point of view, but none the less instructive from a sociological point of view. A summary of these studies of Dr. Chapin's conclusions is presented in a brief article in the March number of *The Forum*, wherein he shows that heredity plays a comparatively unimportant part as compared with the environment of child-life.

The late George W. Childs was better known as an individual giver than perhaps any other man in the United States. It is no exaggeration to say that Mr. Childs, for the last half of his life, put more time, labor, and pains into the work of giving than he did into making money. To many people he seemed to scatter his gifts broadcast and bestow them indiscriminately, but his giving was not without a method. In the *Review of Reviews* for March Mr. Childs' method of giving is appreciatively yet discriminately described by Talcott Williams of the *Philadelphia Press*. This article is illustrated with portraits of Mr. Childs at different ages, and engravings of some of his most notable gifts.

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Prof. Charles Wright Dodge's Introduction to Elementary Practical Biology (Harpers) is intended to be a laboratory guide for high schools and college students. The plan proposed is to direct the attention of the student particularly to the specimens he collects. He may compare, then, what he learns out of books with the specimens he sees. In this way independence of research is stimulated. The learner feels the spur and tackles his subject more thoroughly.

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OUR TIMES for March contains portraits and sketches of the king of Abyssinia, Sir Samuel Baker, George W. Childs, and Hans Guido von Bulow. There is also a portrait of Admiral Benham, who recently added to his fame by his action at Rio Janeiro, and the Rt. Hon. Wm. E. Gladstone. Besides there is an illustrated article entitled "The Future Warship," and another on "A Wonderful Air-Gun." In accordance with a subscriber's suggestion a series on "Great Cities" has been begun with an article on London, including a map. The other illustrated articles are "The Banana as a Lawn Plant" and "A Railroad up the Jungfrau." There is also the usual condensed review of current events.

Every one knows what an influence works of art have on the mind, and every good teacher knows what a silent educational power there is in good charts and maps on the wall; the pupils imbibe the knowledge these present almost unconsciously. When looking for wall maps and other school supplies it will be well to correspond with J. M. Olcott, 9 West 14th street, N. Y.

"The flowers that bloom in the spring" are said to have nothing to do with the case, but the fact that L. B. Landis, manager of the Pennsylvania School Bureau, Allentown, Pa., does business in all the states has a great deal to do with the case. He has extensive facilities for business and considers it both a pleasure and a duty to do the best for his patrons that lies in his power.

Americans should be proud to see their countrymen taking the lead in any line of endeavor. In the making of lead pencils the Joseph Dixon Crucible Co., of Jersey City, N. J., have won a high place. The "American Graphite" pencils are not only used extensively in this country, but in many other countries. They have smooth, tough leads and are favorites wherever used.

"Music hath charms;" every one, except the few unfortunate individuals with no ear for sweet sounds, knows it. Teachers particularly are aware of it. They should see the new music hooks of Oliver Ditson Co., Boston. These include: For schools, "Peters' Burrowes' Piano Primer," "Kinkel's Copy-Book," and "Lobe's Catechism of Music"; and for teachers "How Shall I Teach?" and "Pestalozzian Music Teacher."

The late Miss Woolson is said to have left no unpublished manuscripts with the exception of one or two in the possession of *Harper's Magazine*. Her short stories were in great demand and rarely remained long in the publisher's hands before being printed. "A Transplanted Boy," in the February *Harper's*, was written two years ago, and is one of a series of sketches of Italian life, of which enough were finished to make a small volume.

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